October 2015

MEMORANDUM FOR: STUDENTS & VISITORS OF DTE/OTI

SUBJECT: RULES & REGULATIONS

1. **EMERGENCY PLAN:** ALL STUDENTS & VISITORS are required to sign in at the guard station or in the classroom on a daily basis. The sign in sheets are used to account for personnel in the event of an emergency.

    a. **FIRE EVACUATION** = If the alarm is sounded and an announcement directs an evacuation, please exit the building at the nearest exit. Two stair wells are available for egress, one at the west end and one at the east end of the building. Please meet your instructor or designated OTI staff in the southwest parking lot near the gazebo. Identify your assigned classroom and gather in the parking space with the corresponding number. Do not block any emergency routes at any time.

    b. **SHELTER-IN-PLACE** = If the alarm sounds and an announcement directs a shelter-in-place, please enter the nearest stairwell. Identify the section of the stairwell bearing the number of your assigned classroom and await your instructor at that location. Remain there until you are released to return to your classroom or evacuate.

    ACTIVE SHOOTER = If an announcement informs you there is an active shooter in the building, please evacuate through the nearest exit. Continue north (away from the Dunkin Donuts and toward Walgreens) along Arlington Heights Road to the fire station, two buildings away. Meet your instructor or designated OTI staff in the back parking lot of the fire department.

2. **PROFESSIONAL CONDUCT:** Unacceptable conduct will not be tolerated. Students will be withdrawn from class and returned to their office. Course credit will not be provided. Student's Supervisors will be contacted.

3. **SAFETY and HEALTH PROGAM:** DTE/OTI follows the OSHA Field Safety and Health Manual. Students must follow instructions regarding safe use of equipment, personal protection, and behavior. Students and visitors must stay clear of any area where contractors are performing work.

4. **CELL PHONES, LAPTOPS, & DEVICES:** All electronic devices must be turned off or placed in silent mode during course instruction. If you must be available by phone for an unusual circumstance, please notify the course chairperson. Laptops may be used for class activities at the discretion of the chairperson/instructor. WIFI may only be used for training purposes. It is prohibited to surf on unprofessional websites with the use of the

DTE WIFI. Video downloading should be performed only during lunch hours. The user must abide by copyright laws when transferring video content.

5. **FULL ATTENDANCE:** You are required to attend the entire course. The final test will be administered on the last day of class, followed by distribution of course certificates. In an emergency, if you must be absent, the course chairperson and your supervisor must be informed as soon as possible. You will not be awarded a certificate of completion if you fail to attend the entire course.

6. **SECURITY BADGES:** Badges must be worn at all times. Students and visitors must enter and exit the facility through the front lobby only.

7. **RESTRICTED AREAS:** Student access to the 3rd floor, labs, duplication office and dock area is prohibited unless accompanied by OTI staff. Visitors must be escorted by DTE staff.

8. **ATTIRE:** Casual attire is acceptable while attending courses. Shorts are prohibited. Proper footwear is required; sandals are prohibited during course laboratories and equipment demonstrations.

9. **SHIPMENT of COURSE MATERIALS:** Shipping materials are available on the second floor. Participants must use the service account authorized by their office. The OTI address is not authorized for use by students or visitors. There will be a cart in the hall on the second floor or in the classroom for sealed and labeled boxes. You must use your official office address only. Do not leave any parcels in the front lobby.

10. **PERSONAL ITEMS:** Items such as, but not limited to purses, glasses, electronic devices and jackets are the sole responsibility of the owner.

11. **FOOD and BEVERAGES:** Consumption of food or beverages is allowed in the classroom. Students should clean their respective area and dispose of all waste before exiting the premises each day. DTE maintains a recycling program. Paper recycling containers are located in your classroom and containers for mixed items, glass, plastic and aluminum, are located in the hallway next to the restroom doors.

12. **PARKING:** Parking is restricted to DTE facility parking lot. Cars parked at other locations may be ticketed and/or towed at the owner's expense.

13. **LUGGAGE:** Do not leave any luggage or parcels in the front lobby. Keep all luggage in your control while in the building.

14. **SMOKING:** Smoking and vaping is prohibited inside any federal building. Designated smoking areas are provided on either side of the front, main entrance. Receptacles are provided for disposal.

15. **NONENDORSEMENT OF COMMERCIAL INTERESTS:** The OSHA Training Institute uses outside contractors from private consulting firms, technical equipment manufacturers and safety supply firms for demonstration purposes only. These external entities may have proprietary interests. OTI does not promote or endorse any individual or product.

16. **COPYRIGHTED MATERIALS:** Various materials presented and used for the purpose of delivery and understanding of course content are solely granted to the OSHA Training Institute. Students may not reproduce, distribute, display, or make derivative works without approval from the original author/creator.

17. **STUDENT TRANSCRIPTS and RECORDS:** Students may access their OTI course record through LearningLink history. Those without LearningLink access must submit a transcript request to oti.registration@dol.gov

18. **INTERNET & WIFI:** Computers are available as a courtesy on the second floor. Log out of any official and personal websites and browsers when you complete your session. These computers are maintained for use during breaks. **WIFI may only be used for training purposes during regular class hours. It is prohibited to surf on unprofessional websites with the use of the DTE WIFI. Video downloading should only be performed during lunch hours. The user must abide by copyright laws when transferring video content.**

U.S. Department of Labor

Occupational Safety and Health Administration
Washington, D.C. 20210

Reply to the attention of:

Dear Safety and Health Professional,

Thank you in advance for your active participation in the course you are about to begin at the OSHA Training Institute (OTI). I am convinced that well trained, professional, and dedicated OSHA employees and other safety and health professionals are essential for fulfilling the intent of the Occupational Safety and Health Act: To assure safe and healthful working conditions for working men and women. I hope and expect you will take the information you receive during this course back to your work and use it to further the Agency's critical mission.

To be effective, OSHA employees, Federal and State Compliance Officers, OSHA consultants, and other Federal Agency and private sector personnel need broad knowledge of workplace hazards and expertise in identifying and controlling them. Acquiring this knowledge and expertise is a formidable undertaking given the vast array of hazards that exist in US workplaces. OTI courses offer the technical information and perspective to help develop your skills. Your success in completing this course is no longer measured by merely being present when the information is discussed or completing the course objectives. Your success, like the success of the course, is realized when the knowledge and skills gained are used in your daily work protecting American workers.

The Labor Department has a long history of contributing to the welfare of American workers. Frances Perkins, the fourth Secretary of Labor, once stated:

"There is always a large horizon.... There is much to be done ... I am not going to be doing it! It is up to you to contribute some small part to a program of human betterment for all time."

Your participation in this course is evidence of your commitment to striving for Secretary Perkin's large horizon, and I thank you for it. I trust you will find your learning experience rewarding and wish you every success in the future.

Sincerely,

Dorothy Dougherty

Dorothy Dougherty,
Deputy Assistant Secretary

U.S. DEPARTMENT OF LABOR
DIRECTORATE OF TRAINING AND EDUCATION

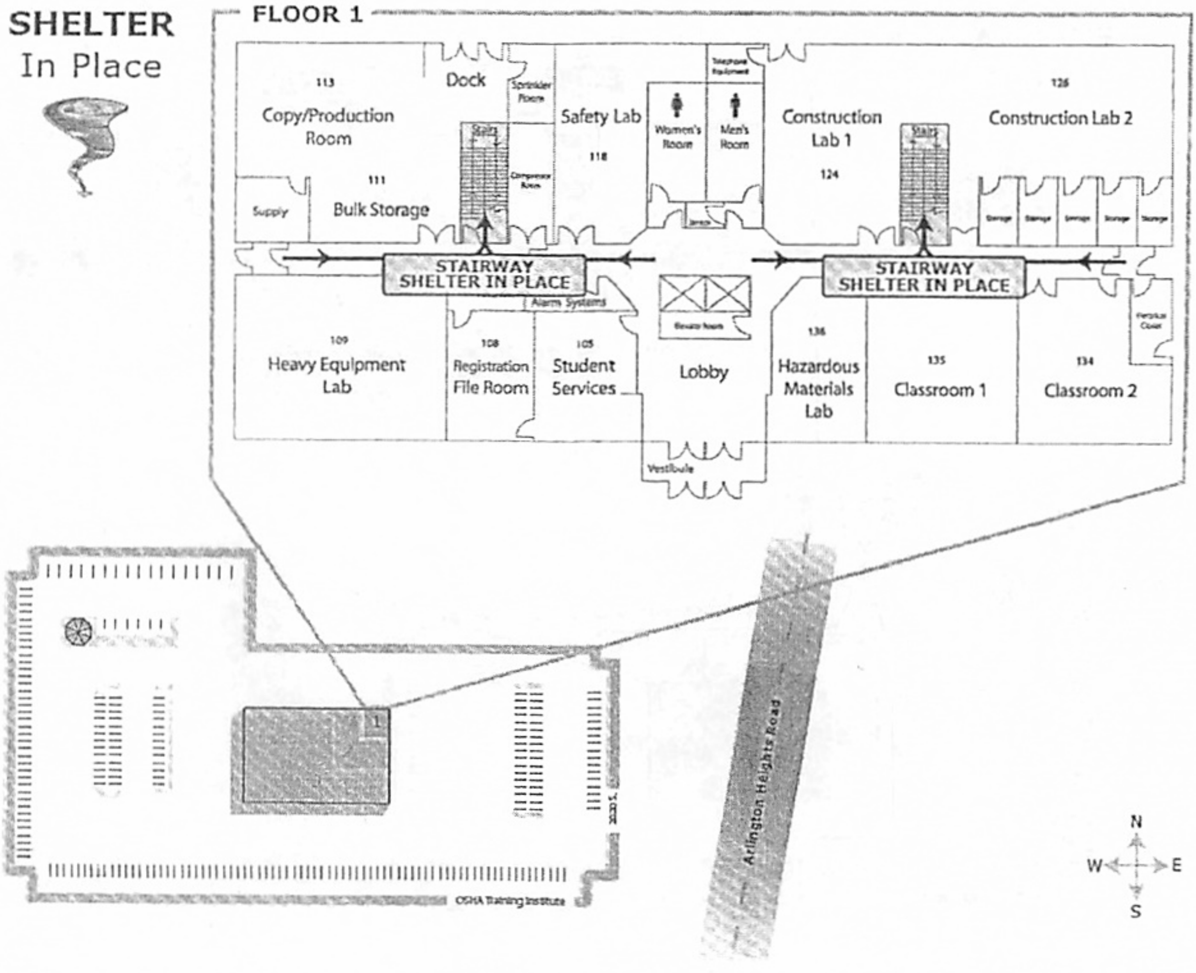
EMERGENCY ACTION FOR ALL EMPLOYEES

SHELTER-IN-PLACE

(Tornado, toxic material release, biological accident):

1) Listen to all instructions over the intercom system and from Emergency Responder team members.
2) If there are students or visitors in the building, provide for their safety by directing them to shelter in the stairwell. Although restrooms may provide protection they are not an acceptable shelter location.
3) Evacuate offices and classrooms, follow the shelter in place plan routes for the area in which you are working and observe procedures.
4) Proceed to the shelter in place refuge areas in the stairwells and wait for further instructions from Emergency Responder team members.

NOTE: Instructions for shelter-in-place situations will be announced over the intercom system. Familiarize yourself with the shelter-in-place refuge areas, in the nearest stairwell. Emergency Responder team members will wear high visibility vests.


SHELTER
In Place
FLOOR 1
113
Copy/Production Room
Dock
Sprinkler Room
Safety Lab
118
Women's Room
Men's Room
Telephone Equipment
Construction Lab 1
124
126
Construction Lab 2
111
Bulk Storage
Supply
Stairs
Compressor Room
Storage
Storage
Storage
Storage
Storage
STAIRWAY SHELTER IN PLACE
STAIRWAY SHELTER IN PLACE
Alarm Systems
109
Heavy Equipment Lab
108
Registration File Room
105
Student Services
Lobby
136
Hazardous Materials Lab
135
Classroom 1
134
Classroom 2
Vestibule
1
Arlington Heights Road
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U.S. DEPARTMENT OF LABOR
DIRECTORATE OF TRAINING AND EDUCATION

EMERGENCY ACTION FOR ALL EMPLOYEES

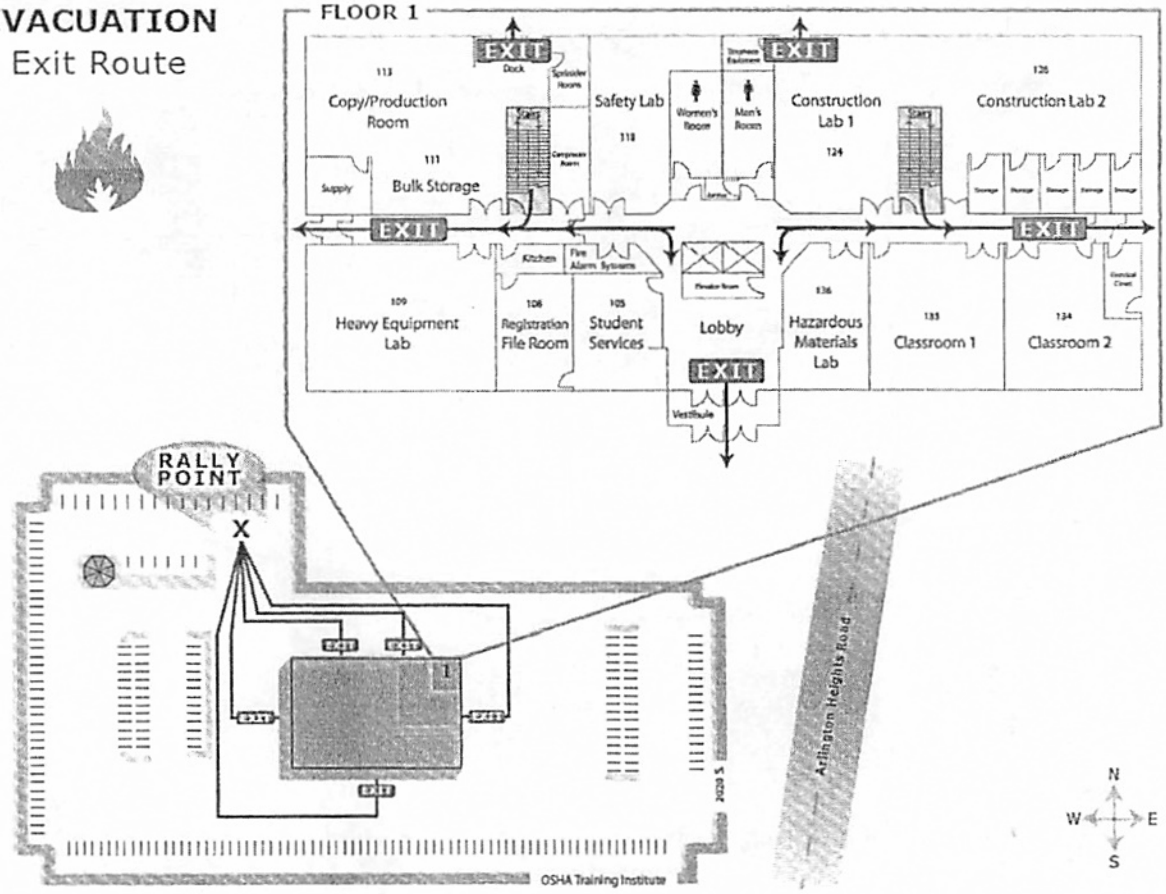
EVACUATION

(Fire, explosion, earthquake, toxic material release, biological accident, civil disturbance and workplace violence):

1) Listen to all instructions over the intercom system and from Emergency Responder team members.
2) If there are students or visitors in the building, provide for their safety by directing them to the evacuation rally point.
3) Evacuate the building, follow the evacuation plan routes for the area in which you are working and observe procedures.
4) Proceed to the evacuation rally point in the northwest corner parking lot, adjacent to the gazebo and wait for further instructions from Emergency Responder team members.

NOTE: Employees are not trained or expected to fight fires. Familiarize yourself with the location of all evacuation routes, exits, and evacuation rally point. Emergency Responder team members will wear high visibility vests.

EVACUATION
Exit Route


FLOOR 1
EXIT
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Bulk Storage
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Safety Lab
118
Women's Room
Men's Room
Janitor
Telephone Equipment
EXIT
Construction Lab 1
124
126
Construction Lab 2
Stairs
Storage
Storage
Storage
Storage
Storage
EXIT
EXIT
Kitchen
Fire Alarm Systems
109
Heavy Equipment Lab
106
Registration File Room
105
Student Services
Elevator Room
Lobby
EXIT
Vestibule
136
Hazardous Materials Lab
135
Classroom 1
134
Classroom 2
Electrical Closet
RALLY POINT
X
EXIT
EXIT
EXIT
EXIT
EXIT
1
Arlington Heights Road
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Welcome to Course #2450
Evaluation of Safety and Health Management System

Course Goal

Participants will be able to evaluate the employer's safety and health management system (SHMS) according to OSHA guidelines and policy for the purpose of promoting a system that effectively reduces the potential for job-related illnesses and injuries

Evaluation of Safety and Health Management Systems Course

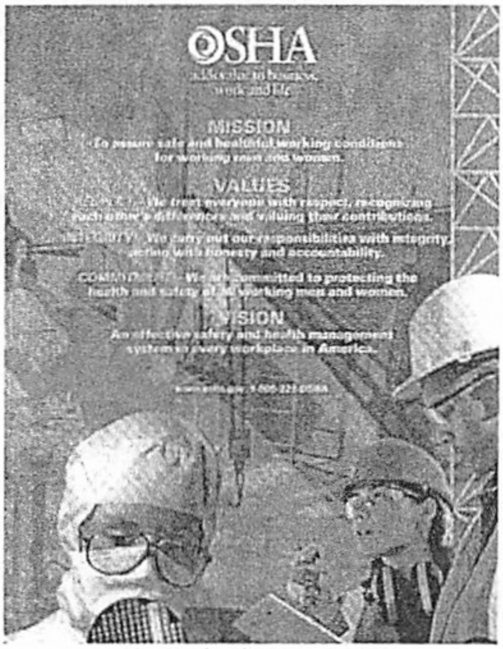
#2450 Objectives

By the end of this course, participants will be able to:

- ☐ Explain the importance of a SHMS within the enforcement inspection process
- ☐ Apply OSHA policy and guidelines to evaluating the employer's SHMS
- ☐ Identify strategies for analyzing SHMSs at varied worksites
- ☐ Communicate the advantages of establishing or improving the employer's SHMS

OSHA®

OUR MESSAGE
Mission, Values & Vision


OSHA
MISSION
To assure safe and healthful working conditions for working men and women.
VALUES
[illegible] – We treat everyone with respect, recognizing each other's differences and valuing their contributions.
[illegible] – We carry out our responsibilities with integrity, acting with honesty and accountability.
[illegible] – We are committed to protecting the health and safety of all working men and women.
VISION
An effective safety and health management system in every workplace in America.

Limited Edition Poster

Conceived by the Agency's directors, regional administrators, and deputies and designed by our Office of Communications, this inspiring poster serves as a unifying symbol for the employees of this Agency and also as a guidepost in our daily efforts to assure the safety and health of our nation's workforce.

The management team has been asked to share the poster's message and display it in their office where it can be easily seen by all employees and visitors.

Embrace the message... Feel pride in your work!

- TALKING POINTS

- ACTION ITEMS

TALKING POINTS:

- The poster is one of the products resulting from a series of OSHA Leadership Conferences where the future of our Agency was the focus of intense and exciting discussions.
- The poster illustrates how OSHA's future is constructed on a foundation of strong leadership, while ensuring that each of you has the tools and knowledge to effectively improve the lives of working Americans for years to come.
- A strong and strategic intent has emerged through this poster that will improve our effectiveness both internally and externally, while helping to assure safe and healthful working conditions for working men and women.

ACRONYMS RELATED TO SAFETY & HEALTH MANAGEMENT

BLS	BUREAU OF LABOR STATISTICS
DAFWII	DAYS AWAY FROM WORK INJURY AND ILLNESS
DART	DAYS AWAY, RESTRICTED OR TRANSFERRED
I2P2	INJURY AND ILLNESS PREVENTION PROGRAMS
NAICS	NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM
ODI	OSHA DATA INITIATIVE
OHSAS	OCCUPATIONAL HEALTH AND SAFETY ASSESSMENT SERIES
OSPP	OSHA STRATEGIC PARTNERSHIP PROGRAM
ROI	RETURN ON INVESTMENT
SIC	STANDARD INDUSTRIAL CLASSIFICATION
SGE	SPECIAL GOVERNMENT EMPLOYEE
SHARP	SAFETY AND HEALTH ACHIEVEMENT RECOGNITION PROGRAM
SHMS	SAFETY AND HEALTH MANAGEMENT SYSTEM
TCIR	TOTAL CASE INCIDENT RATE
VPP	VOLUNTARY PROTECTION PROGRAM
VPPPA	VOLUNTARY PROTECTION PROGRAM PARTICIPANTS' ASSOCIATION

Evaluation of Safety and Health Management Systems
Course #2450

- Course Goal and Objectives
- OSHA's Mission, Values & Vision
- Acronym List

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	*	Rapid Information Gathering (Job Aid)
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	*	OSHA's Online Compliance Assistance Resources, PPT
	*	Workers' Compensation Overview
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	*	SHMS Standard Comparison Workshop
9	*	Complete 1989 Safety & Health Guidelines

PPT = Power Point

Rev. 12/2014

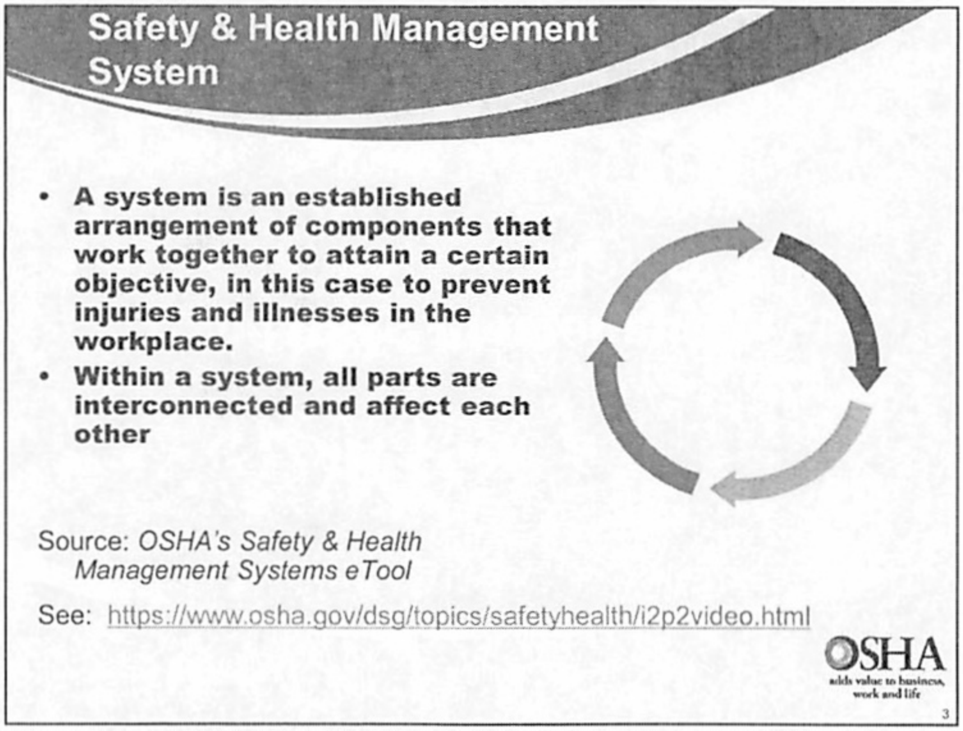
Safety and Health Management Systems

OSHA Occupational Safety and Health Administration

Presentation Objective

- Explain the Value of an Effective Safety and Health Management System for:
  - Employers
  - CSHOs
  - Consultants

OSHA adds value to business, work and life

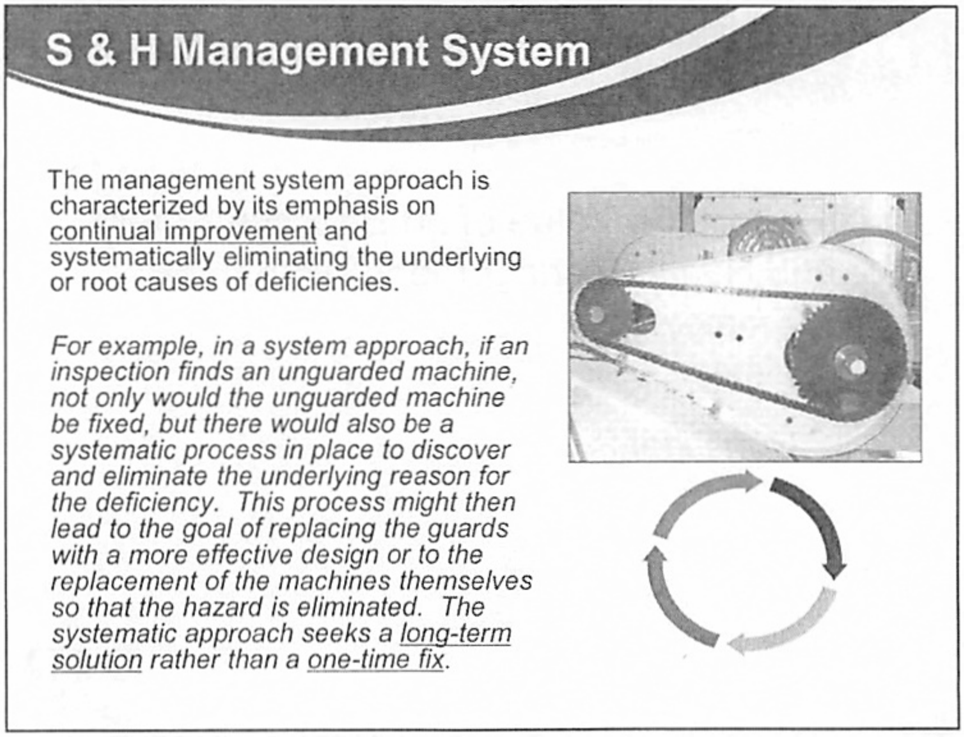


Safety & Health Management System

- **A system is an established arrangement of components that work together to attain a certain objective, in this case to prevent injuries and illnesses in the workplace.**
- **Within a system, all parts are interconnected and affect each other**

Source: *OSHA's Safety & Health Management Systems eTool*

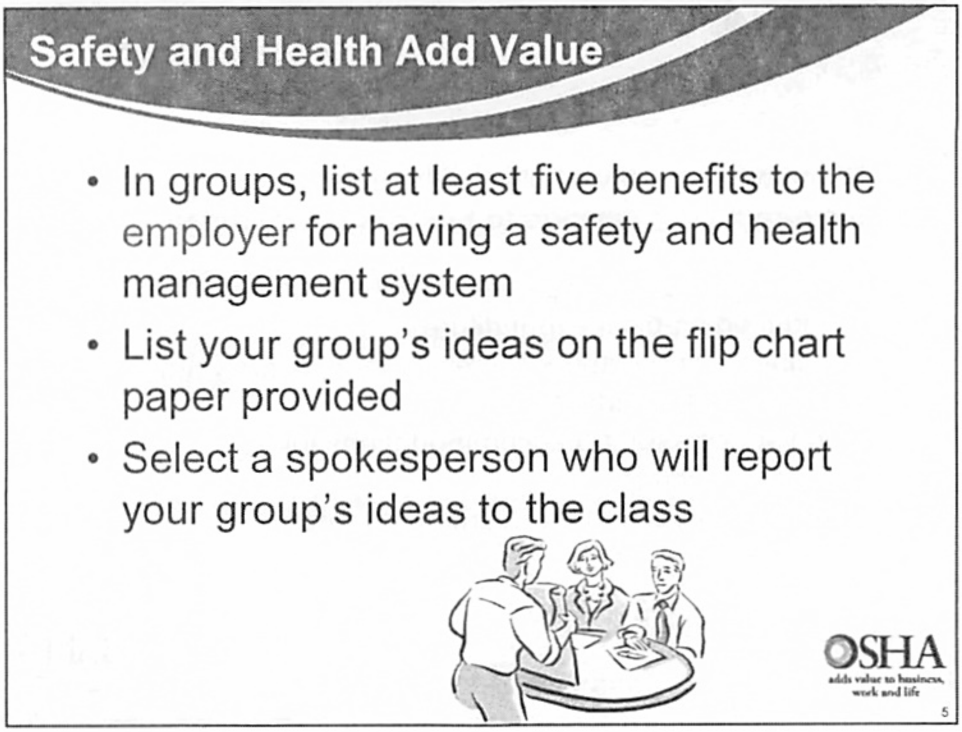
See: https://www.osha.gov/dsg/topics/safetyhealth/i2p2video.html



S & H Management System

The management system approach is characterized by its emphasis on continual improvement and systematically eliminating the underlying or root causes of deficiencies.

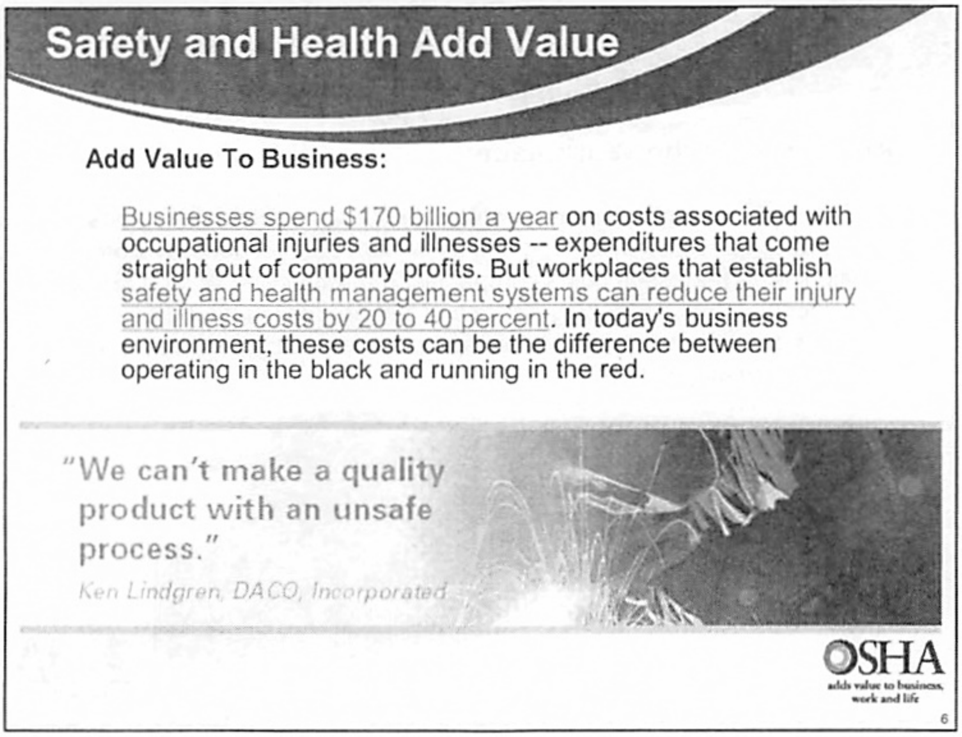
For example, in a system approach, if an inspection finds an unguarded machine, not only would the unguarded machine be fixed, but there would also be a systematic process in place to discover and eliminate the underlying reason for the deficiency. This process might then lead to the goal of replacing the guards with a more effective design or to the replacement of the machines themselves so that the hazard is eliminated. The systematic approach seeks a long-term solution rather than a one-time fix.



Safety and Health Add Value

- In groups, list at least five benefits to the employer for having a safety and health management system
- List your group's ideas on the flip chart paper provided
- Select a spokesperson who will report your group's ideas to the class

OSHA
adds value to business, work and life



Safety and Health Add Value

Add Value To Business:

Businesses spend $170 billion a year on costs associated with occupational injuries and illnesses -- expenditures that come straight out of company profits. But workplaces that establish safety and health management systems can reduce their injury and illness costs by 20 to 40 percent. In today's business environment, these costs can be the difference between operating in the black and running in the red.

"We can't make a quality product with an unsafe process."
Ken Lindgren, DACO, Incorporated

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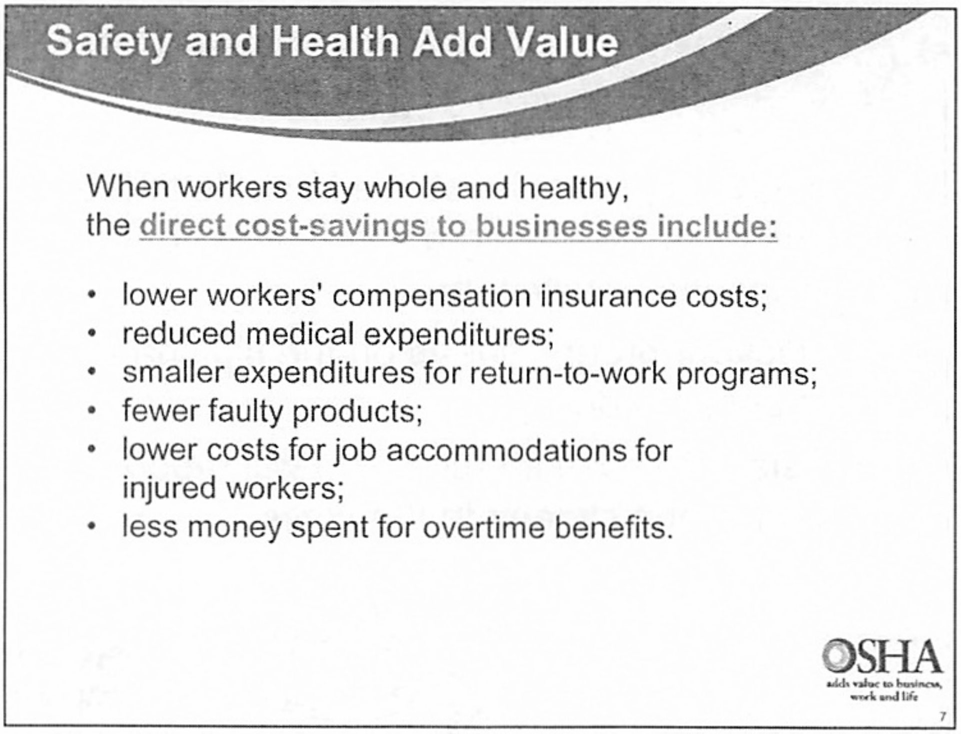
adds value to business, work and life



Safety and Health Add Value

When workers stay whole and healthy,
the direct cost-savings to businesses include:

- lower workers' compensation insurance costs;
- reduced medical expenditures;
- smaller expenditures for return-to-work programs;
- fewer faulty products;
- lower costs for job accommodations for injured workers;
- less money spent for overtime benefits.

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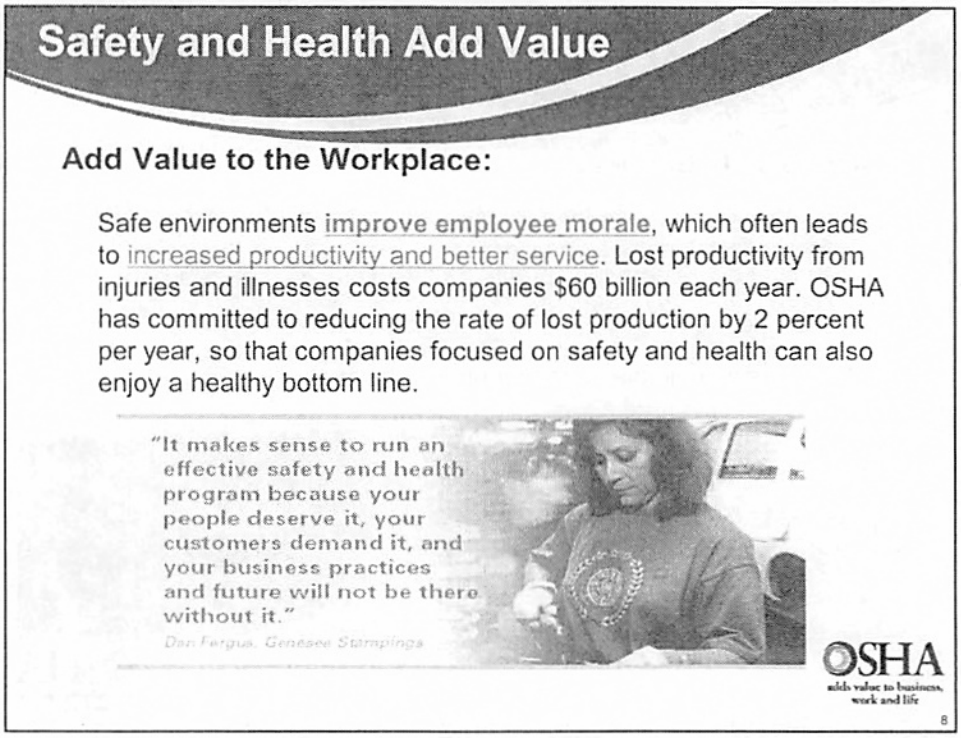

Safety and Health Add Value

Add Value to the Workplace:

Safe environments improve employee morale, which often leads to increased productivity and better service. Lost productivity from injuries and illnesses costs companies $60 billion each year. OSHA has committed to reducing the rate of lost production by 2 percent per year, so that companies focused on safety and health can also enjoy a healthy bottom line.

"It makes sense to run an effective safety and health program because your people deserve it, your customers demand it, and your business practices and future will not be there without it."

Dan Fergus, Genesee Stampings

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adds value to business, work and life

Safety and Health Add Value

Safety environments make big reductions in indirect costs, due to:

- increased productivity;
- higher quality products;
- increased morale;
- better labor/management relations;
- reduced turnover;
- better use of human resources.

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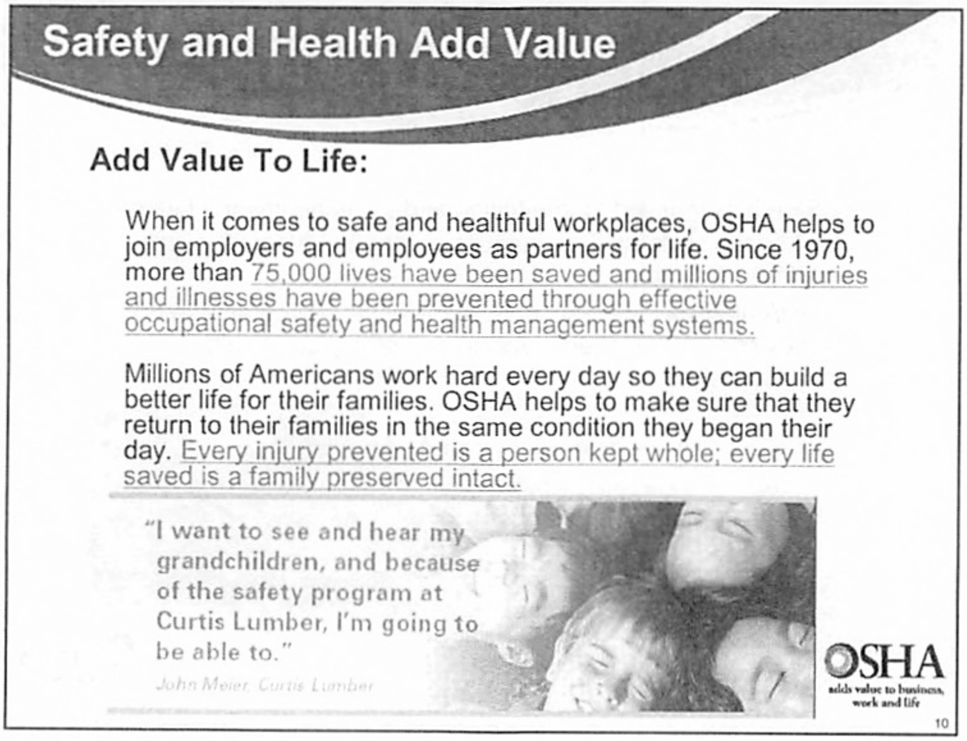


Safety and Health Add Value

Add Value To Life:

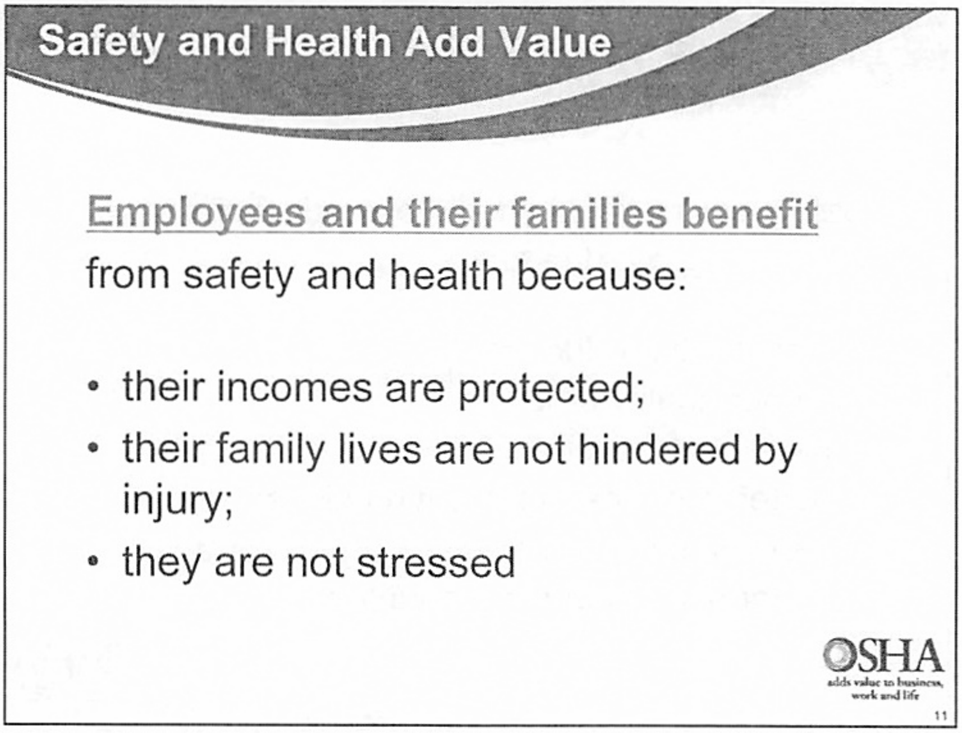
When it comes to safe and healthful workplaces, OSHA helps to join employers and employees as partners for life. Since 1970, more than 75,000 lives have been saved and millions of injuries and illnesses have been prevented through effective occupational safety and health management systems.

Millions of Americans work hard every day so they can build a better life for their families. OSHA helps to make sure that they return to their families in the same condition they began their day. Every injury prevented is a person kept whole; every life saved is a family preserved intact.

"I want to see and hear my grandchildren, and because of the safety program at Curtis Lumber, I'm going to be able to."

John Meier, Curtis Lumber

OSHA
adds value to business, work and life



Safety and Health Add Value

Employees and their families benefit from safety and health because:

- their incomes are protected;
- their family lives are not hindered by injury;
- they are not stressed

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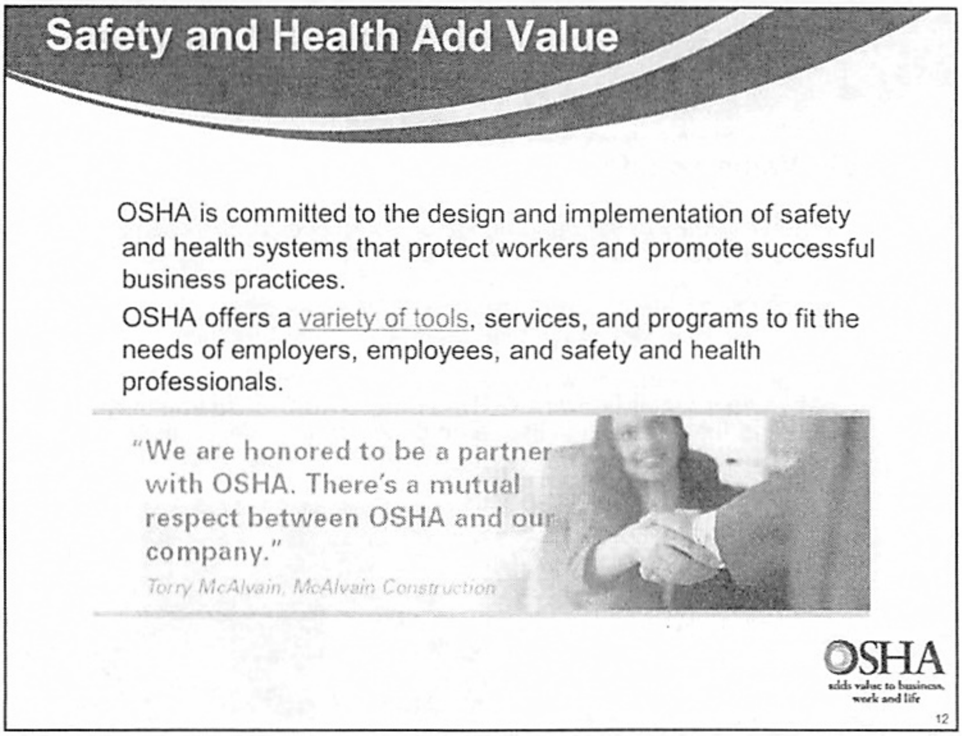
adds value to business, work and life



Safety and Health Add Value

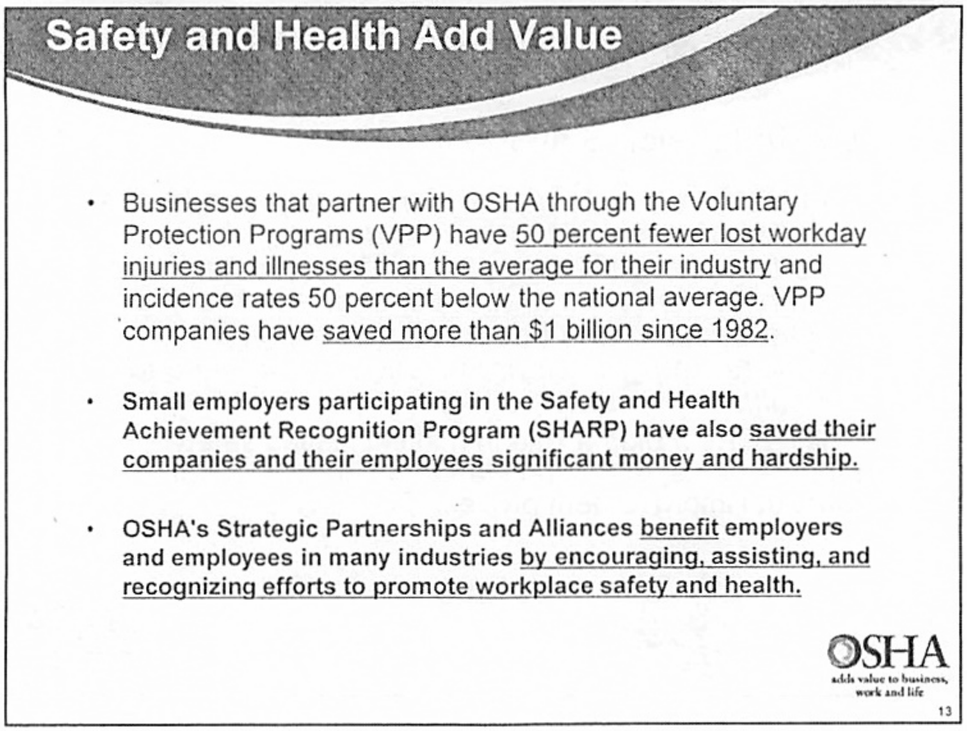
OSHA is committed to the design and implementation of safety and health systems that protect workers and promote successful business practices.

OSHA offers a variety of tools, services, and programs to fit the needs of employers, employees, and safety and health professionals.

"We are honored to be a partner with OSHA. There's a mutual respect between OSHA and our company."

Torry McAlvain, McAlvain Construction

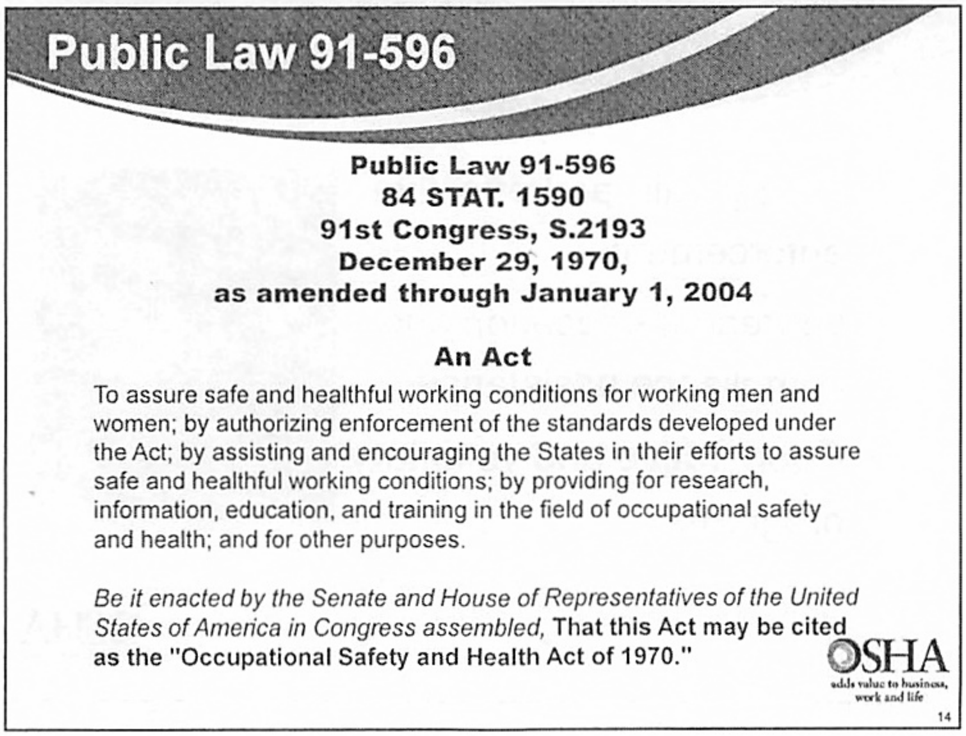
OSHA
adds value to business, work and life



Safety and Health Add Value

- Businesses that partner with OSHA through the Voluntary Protection Programs (VPP) have 50 percent fewer lost workday injuries and illnesses than the average for their industry and incidence rates 50 percent below the national average. VPP companies have saved more than $1 billion since 1982.
- **Small employers participating in the Safety and Health Achievement Recognition Program (SHARP) have also saved their companies and their employees significant money and hardship.**
- **OSHA's Strategic Partnerships and Alliances benefit employers and employees in many industries by encouraging, assisting, and recognizing efforts to promote workplace safety and health.**

OSHA
adds value to business, work and life



Public Law 91-596

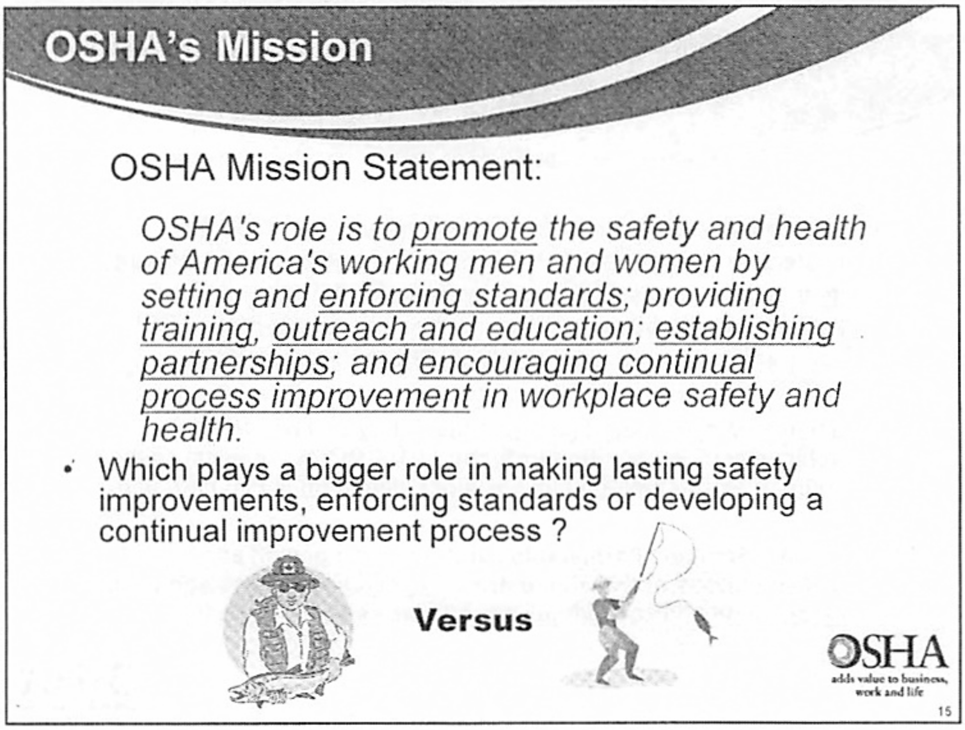
Public Law 91-596
84 STAT. 1590
91st Congress, S.2193
December 29, 1970,
as amended through January 1, 2004

An Act

To assure safe and healthful working conditions for working men and women; by authorizing enforcement of the standards developed under the Act; by assisting and encouraging the States in their efforts to assure safe and healthful working conditions; by providing for research, information, education, and training in the field of occupational safety and health; and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, **That this Act may be cited as the "Occupational Safety and Health Act of 1970."**

OSHA
adds value to business, work and life



OSHA's Mission

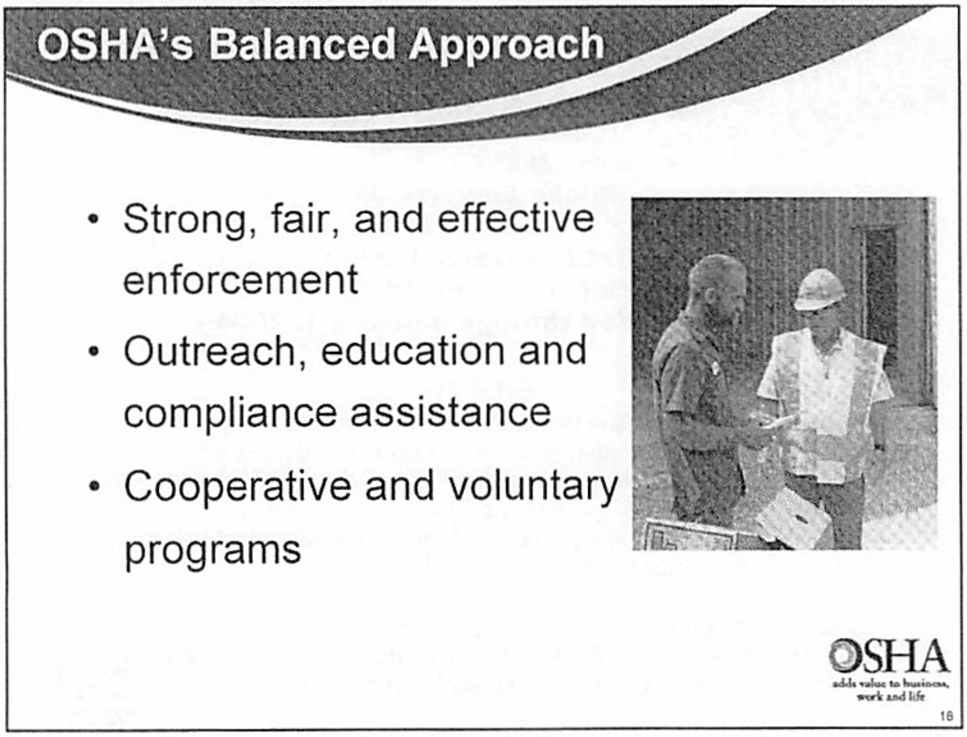
OSHA Mission Statement:

> *OSHA's role is to promote the safety and health of America's working men and women by setting and enforcing standards; providing training, outreach and education; establishing partnerships; and encouraging continual process improvement in workplace safety and health.*

- Which plays a bigger role in making lasting safety improvements, enforcing standards or developing a continual improvement process ?

Versus

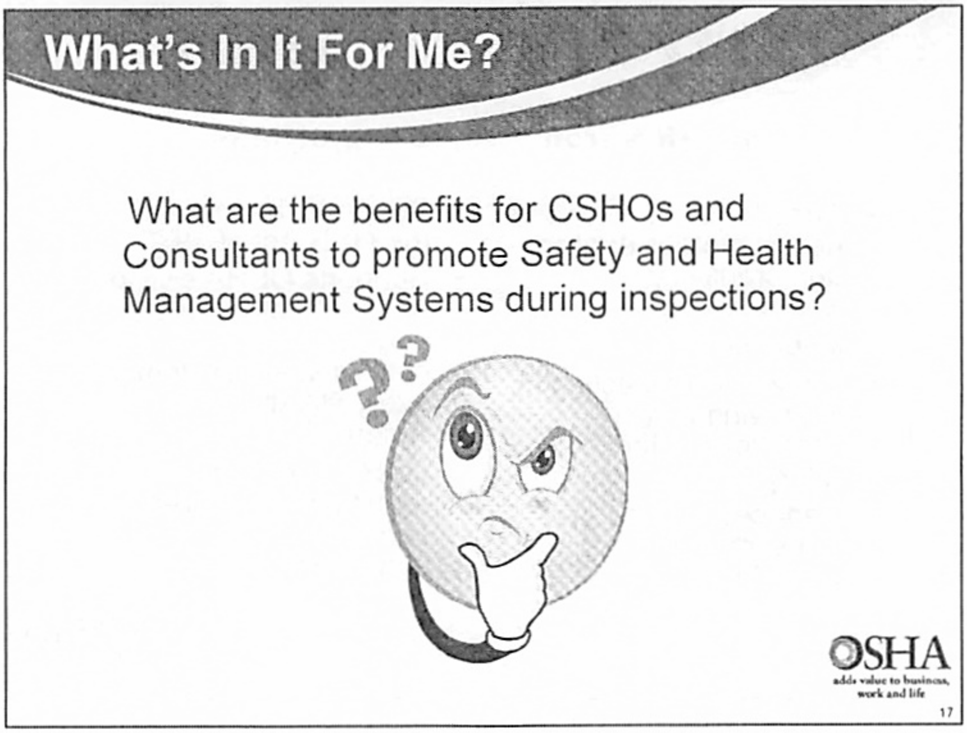
OSHA
adds value to business, work and life



OSHA's Balanced Approach

- Strong, fair, and effective enforcement
- Outreach, education and compliance assistance
- Cooperative and voluntary programs

OSHA
adds value to business, work and life



What's In It For Me?

What are the benefits for CSHOs and Consultants to promote Safety and Health Management Systems during inspections?

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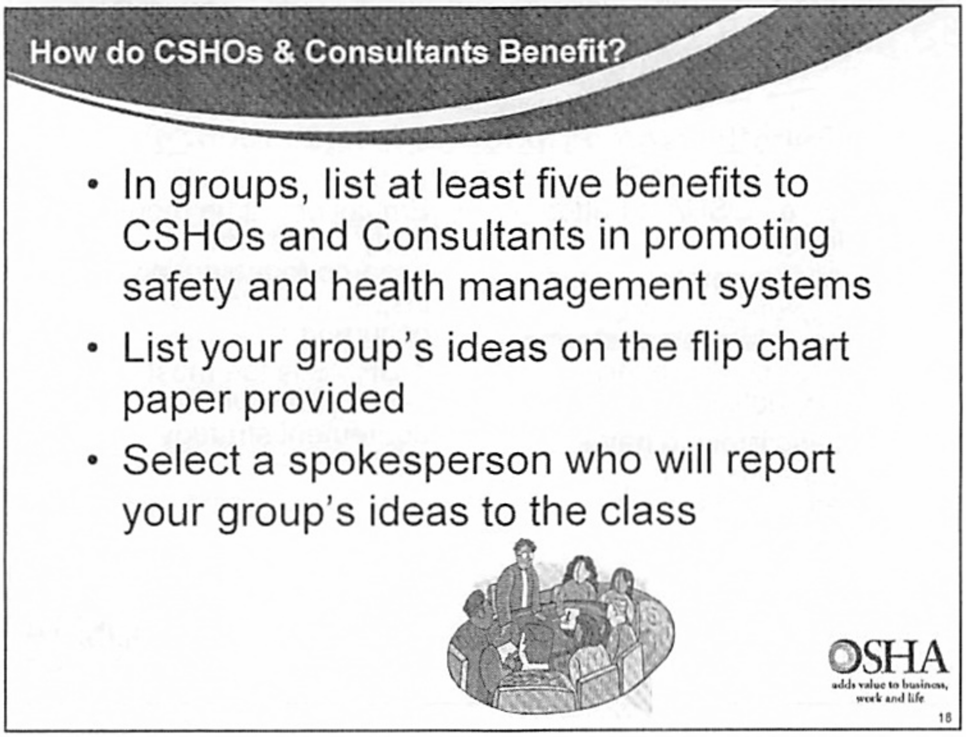
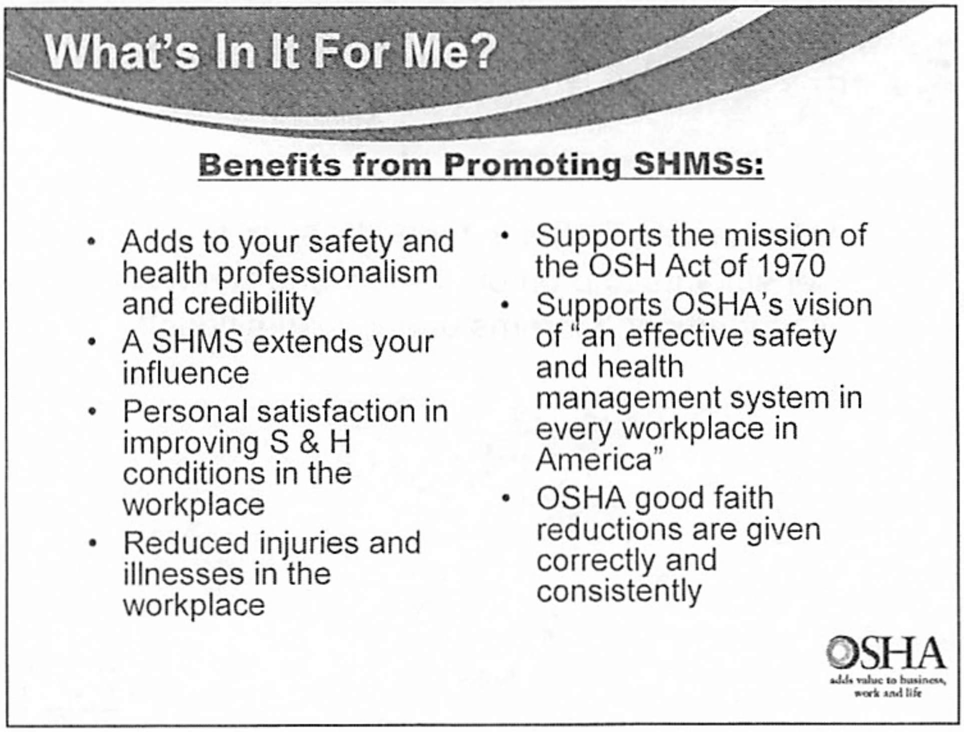
adds value to business, work and life



How do CSHOs & Consultants Benefit?

- In groups, list at least five benefits to CSHOs and Consultants in promoting safety and health management systems
- List your group's ideas on the flip chart paper provided
- Select a spokesperson who will report your group's ideas to the class

OSHA
adds value to business, work and life

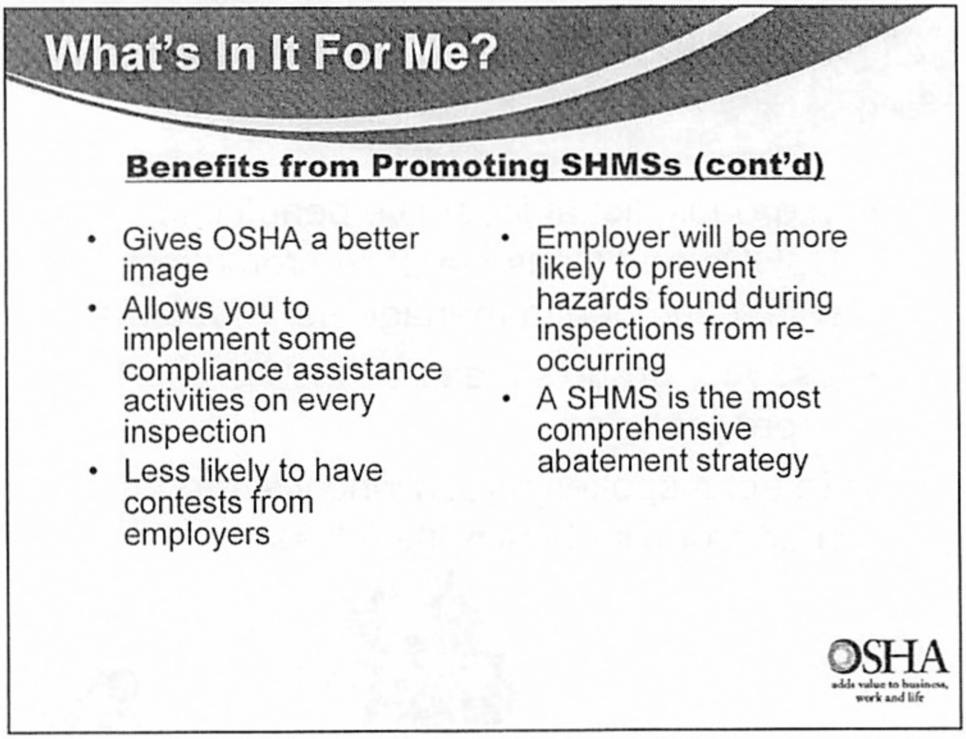


What's In It For Me?

Benefits from Promoting SHMSs:

- Adds to your safety and health professionalism and credibility
- A SHMS extends your influence
- Personal satisfaction in improving S & H conditions in the workplace
- Reduced injuries and illnesses in the workplace
- Supports the mission of the OSH Act of 1970
- Supports OSHA's vision of "an effective safety and health management system in every workplace in America"
- OSHA good faith reductions are given correctly and consistently

OSHA
adds value to business, work and life

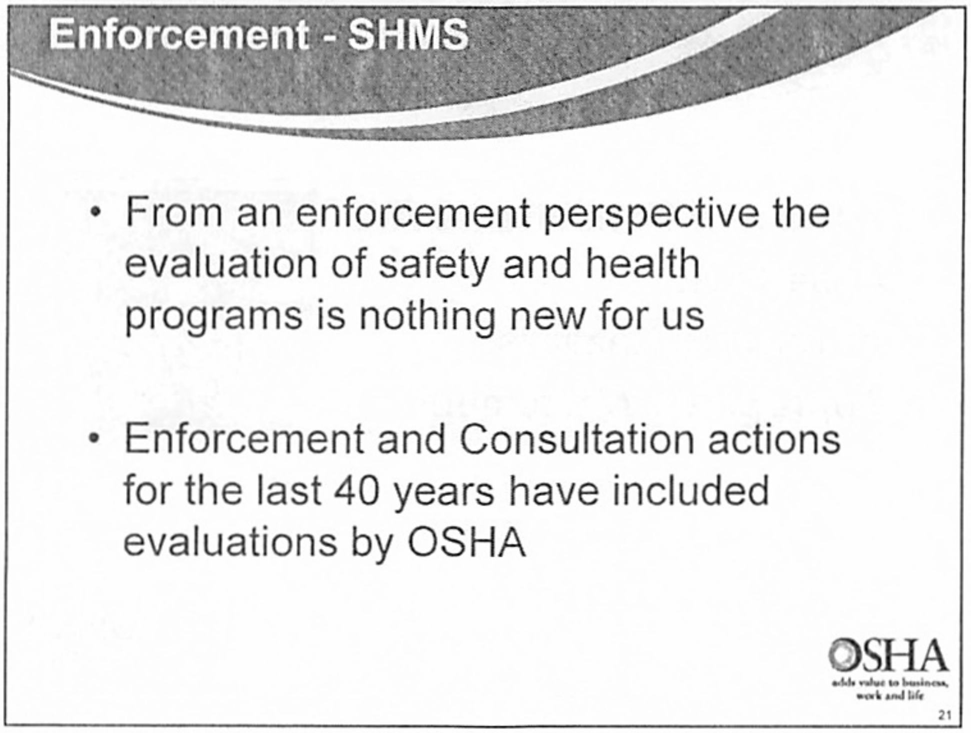


What's In It For Me?

Benefits from Promoting SHMSs (cont'd)

- Gives OSHA a better image
- Allows you to implement some compliance assistance activities on every inspection
- Less likely to have contests from employers
- Employer will be more likely to prevent hazards found during inspections from re-occurring
- A SHMS is the most comprehensive abatement strategy

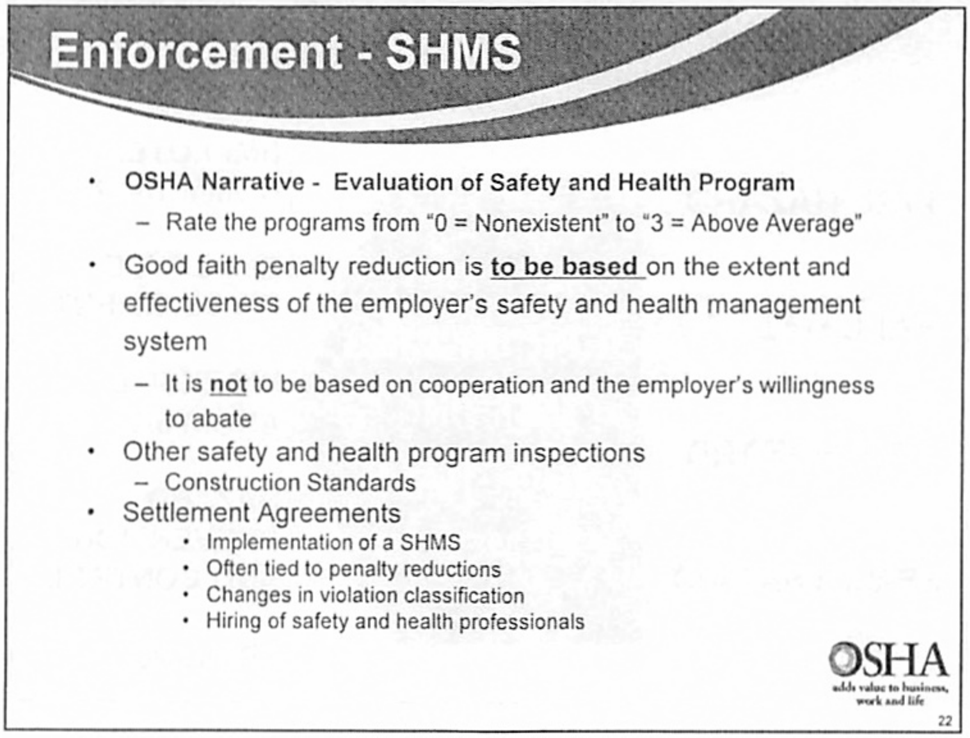
OSHA
adds value to business, work and life



Enforcement - SHMS

- From an enforcement perspective the evaluation of safety and health programs is nothing new for us
- Enforcement and Consultation actions for the last 40 years have included evaluations by OSHA

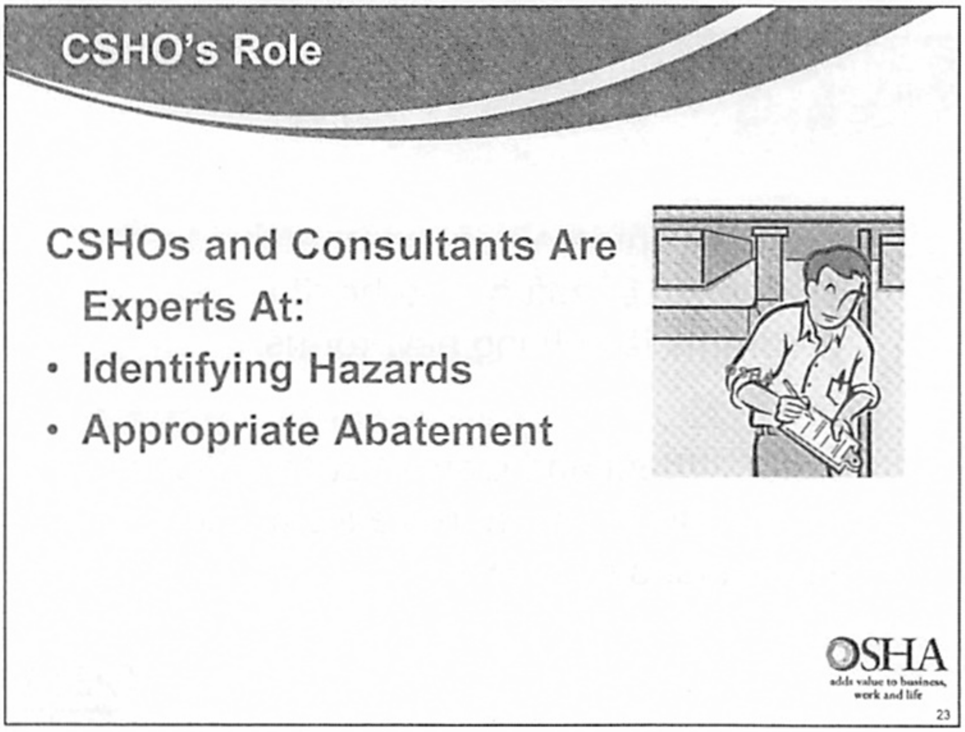
OSHA
adds value to business, work and life



Enforcement - SHMS

- **OSHA Narrative - Evaluation of Safety and Health Program**
  - Rate the programs from "0 = Nonexistent" to "3 = Above Average"
- Good faith penalty reduction is **to be based** on the extent and effectiveness of the employer's safety and health management system
  - It is **not** to be based on cooperation and the employer's willingness to abate
- Other safety and health program inspections
  - Construction Standards
- Settlement Agreements
  - Implementation of a SHMS
  - Often tied to penalty reductions
  - Changes in violation classification
  - Hiring of safety and health professionals

OSHA
adds value to business, work and life

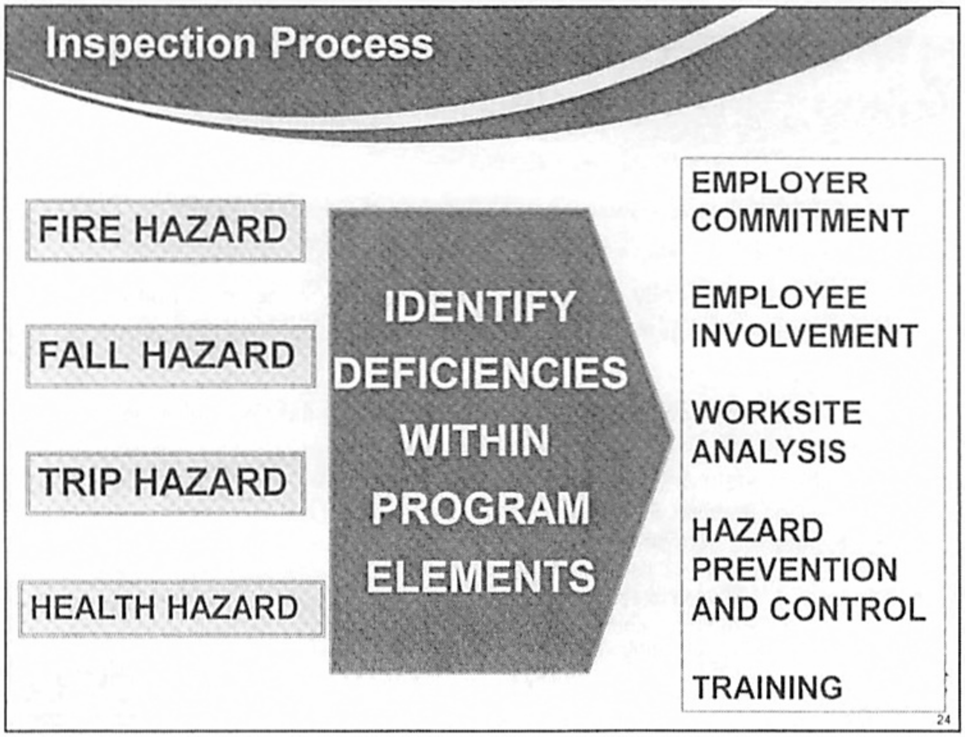


CSHO's Role

CSHOs and Consultants Are Experts At:

- Identifying Hazards
- Appropriate Abatement

OSHA
adds value to business, work and life



Inspection Process

FIRE HAZARD

FALL HAZARD

TRIP HAZARD

HEALTH HAZARD

IDENTIFY DEFICIENCIES WITHIN PROGRAM ELEMENTS

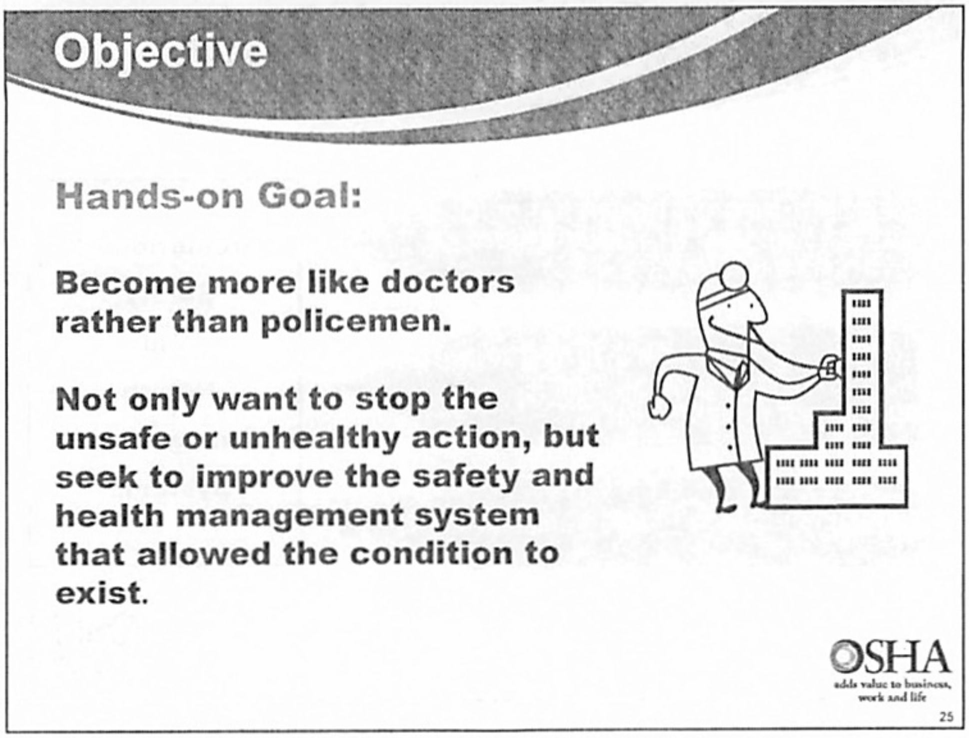
EMPLOYER COMMITMENT

EMPLOYEE INVOLVEMENT

WORKSITE ANALYSIS

HAZARD PREVENTION AND CONTROL

TRAINING



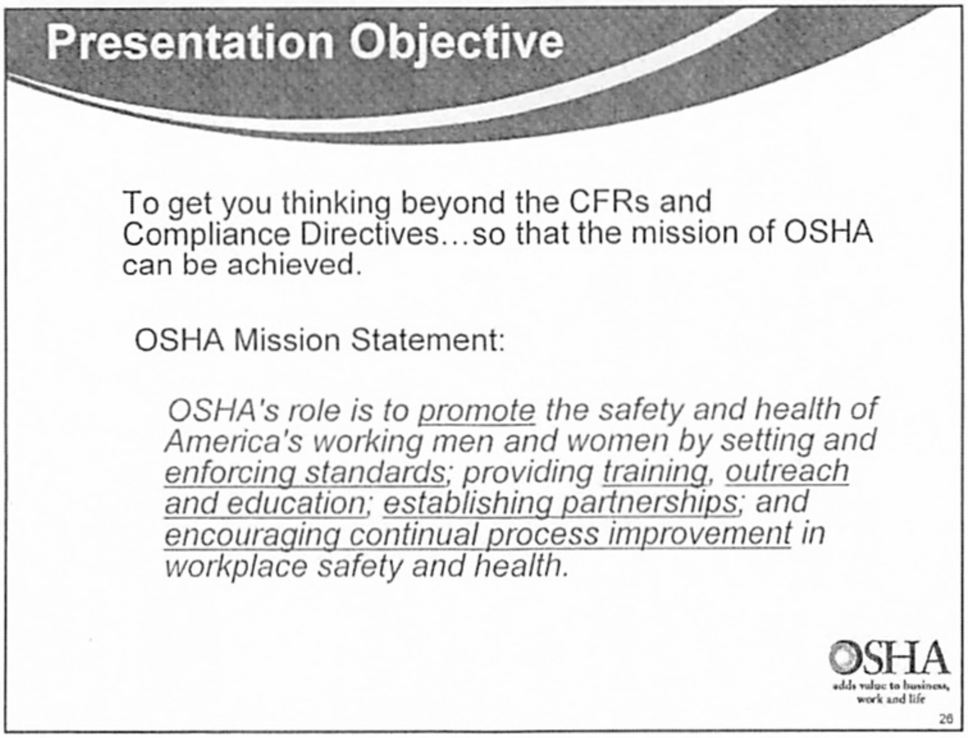
Objective

Hands-on Goal:

Become more like doctors rather than policemen.

Not only want to stop the unsafe or unhealthy action, but seek to improve the safety and health management system that allowed the condition to exist.

OSHA
adds value to business, work and life



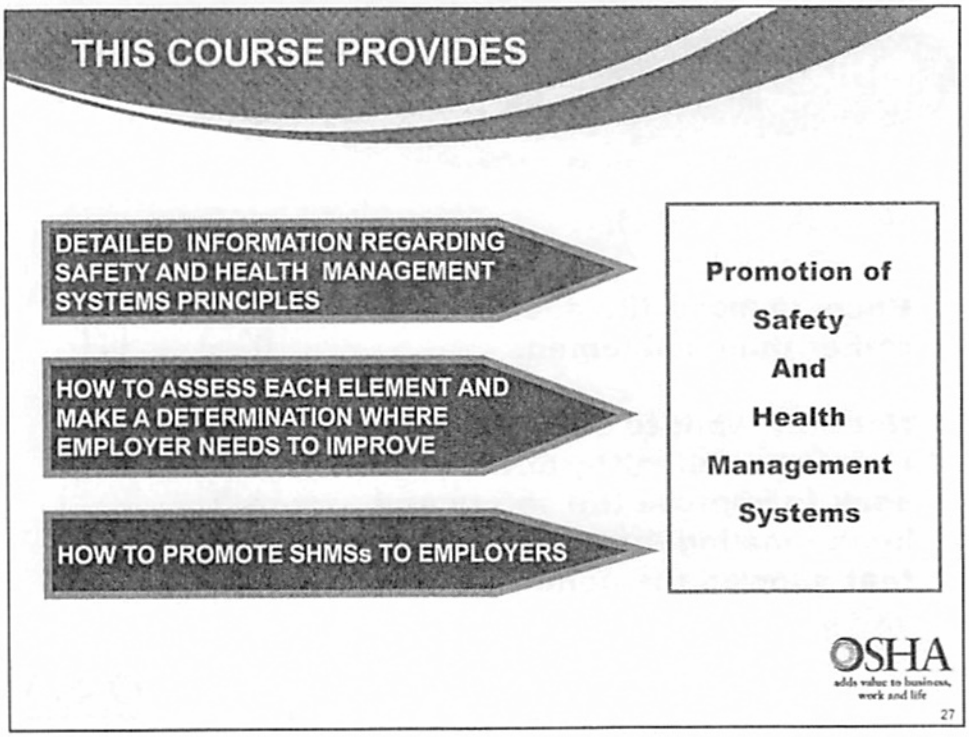
Presentation Objective

To get you thinking beyond the CFRs and Compliance Directives…so that the mission of OSHA can be achieved.

OSHA Mission Statement:

OSHA's role is to promote the safety and health of America's working men and women by setting and enforcing standards; providing training, outreach and education; establishing partnerships; and encouraging continual process improvement in workplace safety and health.

OSHA
adds value to business, work and life



THIS COURSE PROVIDES

- DETAILED INFORMATION REGARDING SAFETY AND HEALTH MANAGEMENT SYSTEMS PRINCIPLES
- HOW TO ASSESS EACH ELEMENT AND MAKE A DETERMINATION WHERE EMPLOYER NEEDS TO IMPROVE
- HOW TO PROMOTE SHMSs TO EMPLOYERS

Promotion of Safety And Health Management Systems

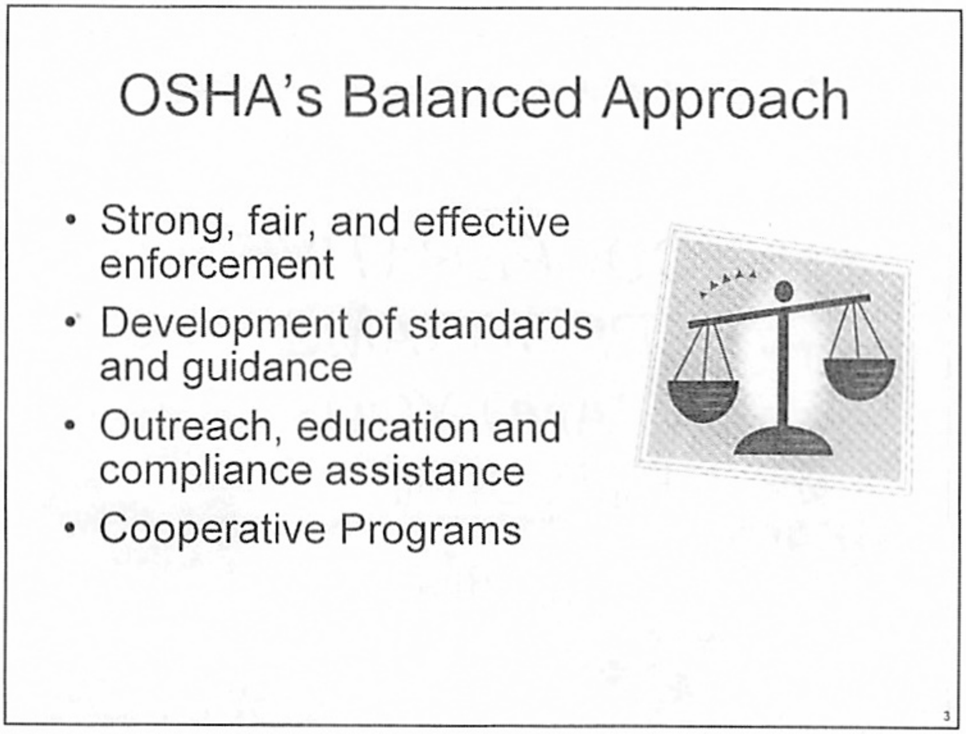
OSHA
adds value to business, work and life

COOPERATIVE PROGRAMS AND YOU

SHARP
Safety & Health Achievement Recognition Program
Consultation: An OSHA Cooperative Program
PARTNERSHIP
An OSHA Cooperative Program
VPP
alliance
An OSHA Cooperative Program
OSHA CHALLENGE
A Roadmap to Safety and Health Excellence
An OSHA Cooperative Program
OSHA
Occupational Safety and Health Administration

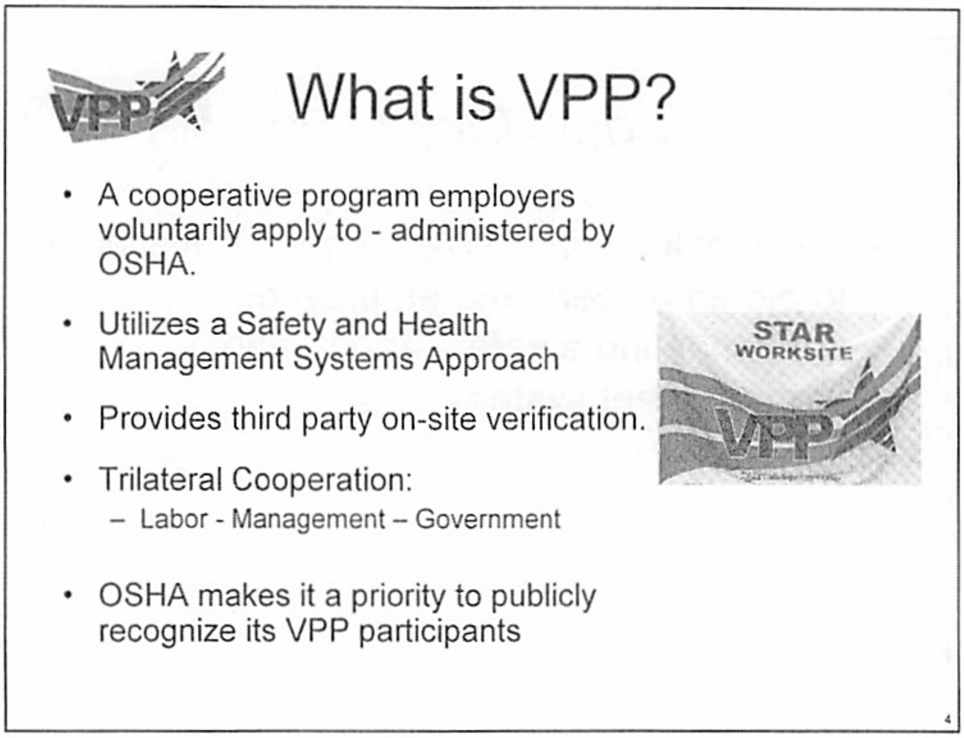
Topic Objective

- To identify cooperative programs available to aid employers and employees in implementing a safety and health management system



OSHA's Balanced Approach

- Strong, fair, and effective enforcement
- Development of standards and guidance
- Outreach, education and compliance assistance
- Cooperative Programs



VPP
STAR
WORKSITE
VPP

What is VPP?

- A cooperative program employers voluntarily apply to - administered by OSHA.
- Utilizes a Safety and Health Management Systems Approach
- Provides third party on-site verification.
- Trilateral Cooperation:
  - Labor - Management – Government
- OSHA makes it a priority to publicly recognize its VPP participants

Elements of VPP

- Management Leadership & Employee Involvement
- Worksite Analysis
- Hazard Prevention & Control
- Training

Sundyne Star Team - 2010

VPP Gets Results

Data Illustrates that VPP Works!

▲ - Click for current data

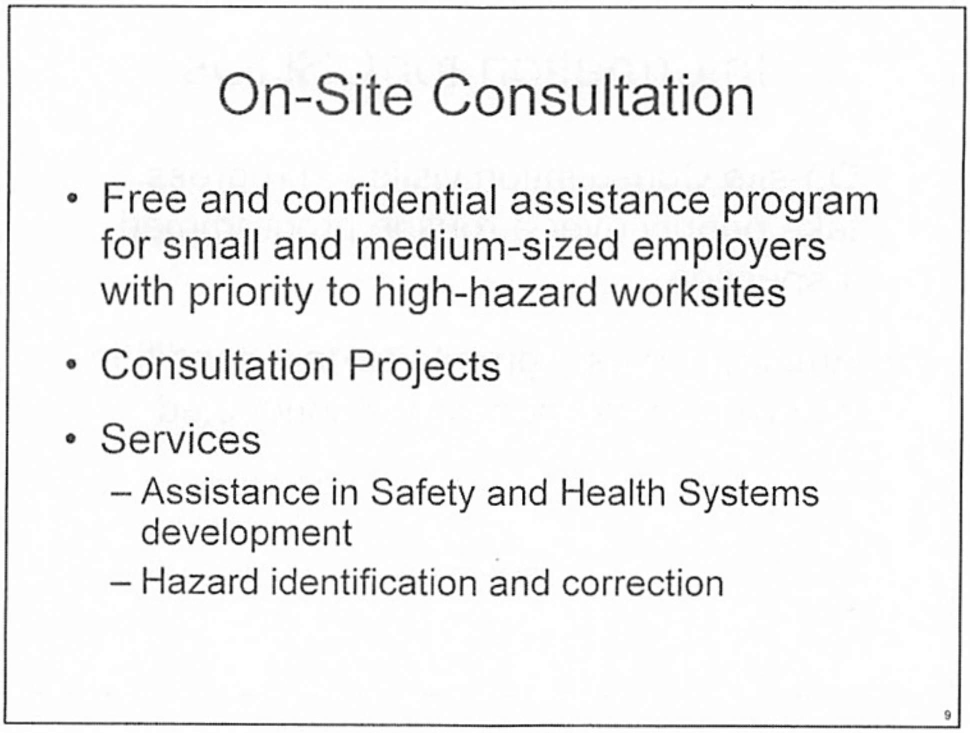
Overall VPP Participants:
61% Below the BLS TCIR
67% Below the BLS DART

Unique VPP Innovations

- **Special Government Employees** (SGE): Qualified volunteers from VPP sites work alongside OSHA employees as team members on VPP onsite evaluations.
- **Mentoring:** The Mentoring program matches a potential VPP site with a current VPP site. The mentor site helps the candidate improve its safety and health management system and assists managers and employees in preparing for participation in the VPP.

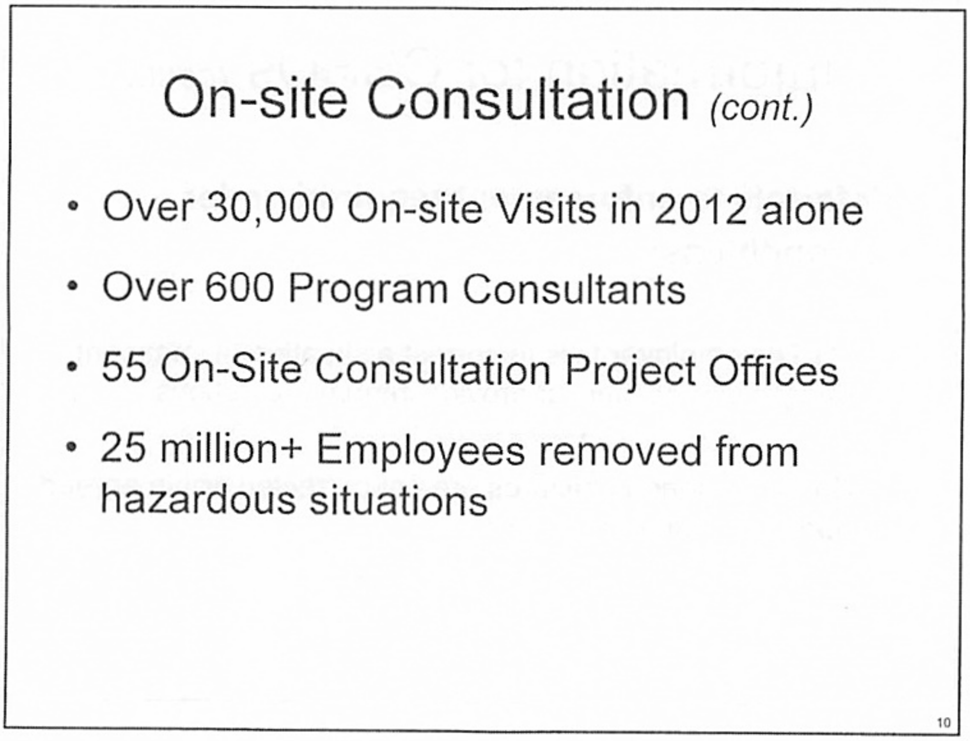
What Is My Role?

- Explain the program and its benefits
- Provide web links, hard copy materials, and other appropriate resources
- Provide contact information for the VPP Manager in your Region



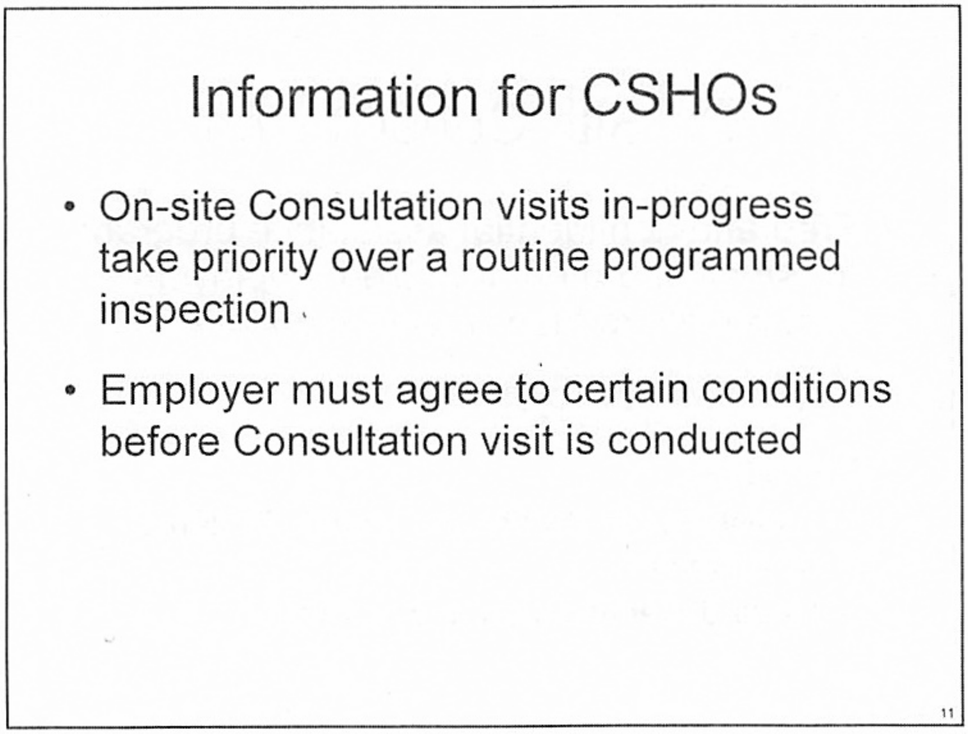
On-Site Consultation

- Free and confidential assistance program for small and medium-sized employers with priority to high-hazard worksites
- Consultation Projects
- Services
  - Assistance in Safety and Health Systems development
  - Hazard identification and correction



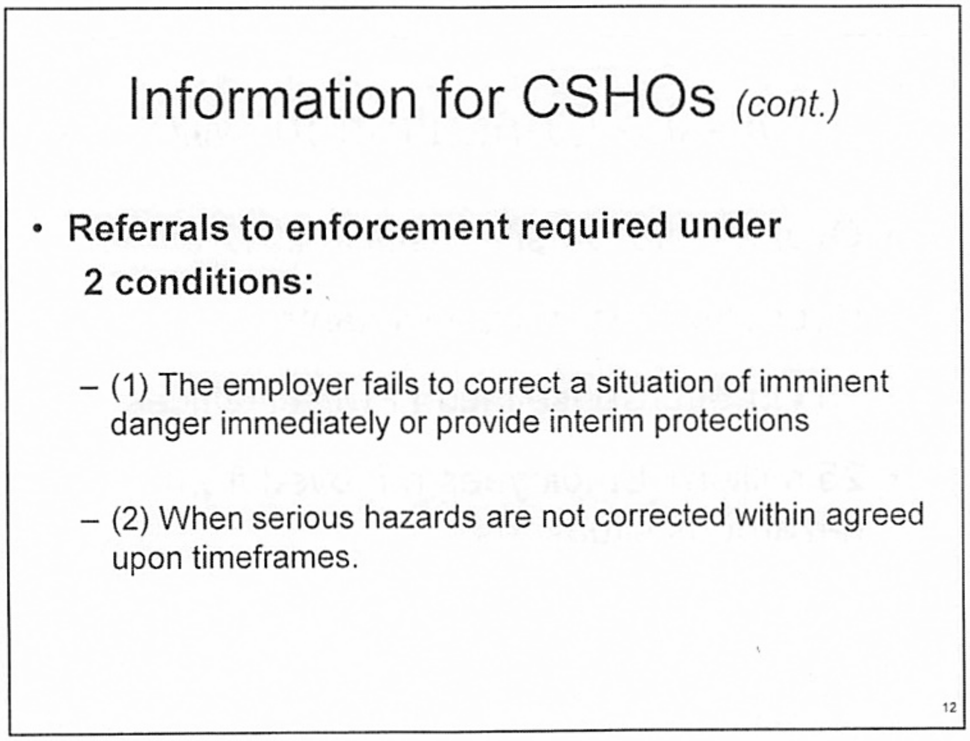
On-site Consultation *(cont.)*

- Over 30,000 On-site Visits in 2012 alone
- Over 600 Program Consultants
- 55 On-Site Consultation Project Offices
- 25 million+ Employees removed from hazardous situations



Information for CSHOs

- On-site Consultation visits in-progress take priority over a routine programmed inspection
- Employer must agree to certain conditions before Consultation visit is conducted



Information for CSHOs *(cont.)*

- **Referrals to enforcement required under 2 conditions:**
  - (1) The employer fails to correct a situation of imminent danger immediately or provide interim protections
  - (2) When serious hazards are not corrected within agreed upon timeframes.

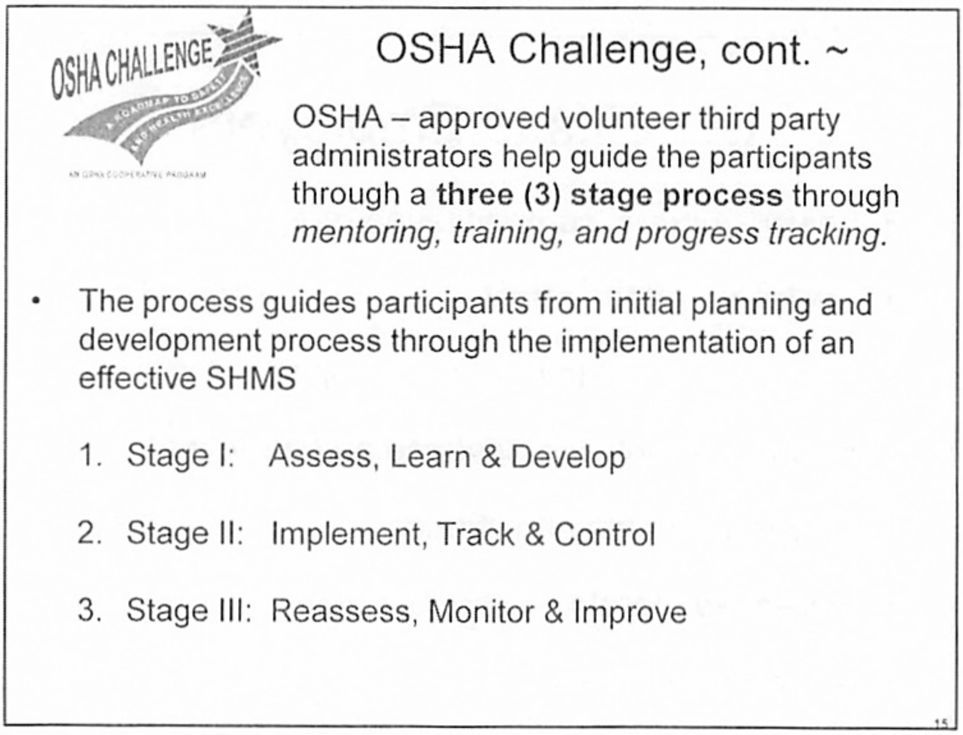
Benefits to Employers

- Lower workers’ compensation rates
- Lower insurance rates
- Fewer days lost to illness and injury
- Reduced employee absence and turnover
- Fewer accidents and injuries
- Increased morale
- Avoidance of fines

OSHA Challenge ~

Provides participating employers and workers an avenue to work with their designated Challenge Administrators to develop and/or improve their *SHMS*.

- Uses VPP model as a foundation to provide a roadmap to eligible employers interested in implementing effective *SHMSs*
- **Do not receive exemptions from OSHA programmed inspections.**
- Challenge graduates receive OSHA recognition & invitation to apply for VPP
- Available to GI & Construction employers (private & public employers under OSHA’s federal jurisdiction.
- https://www.osha.gov/dcsp/vpp/challenge.html

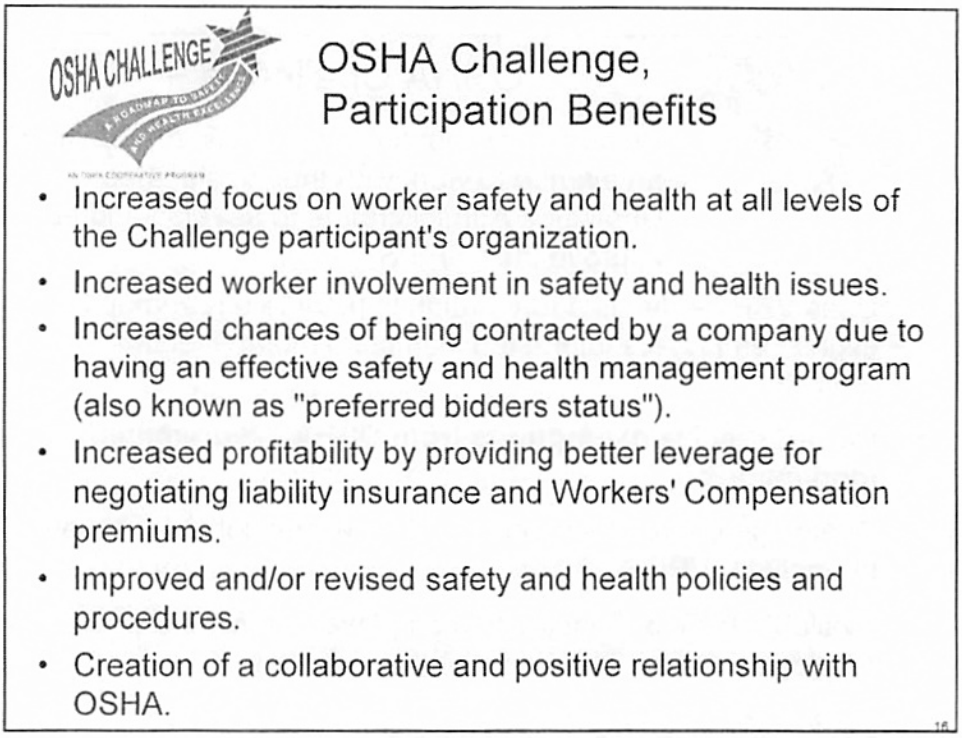


OSHA Challenge, cont. ~

OSHA – approved volunteer third party administrators help guide the participants through a **three (3) stage process** through *mentoring, training, and progress tracking.*

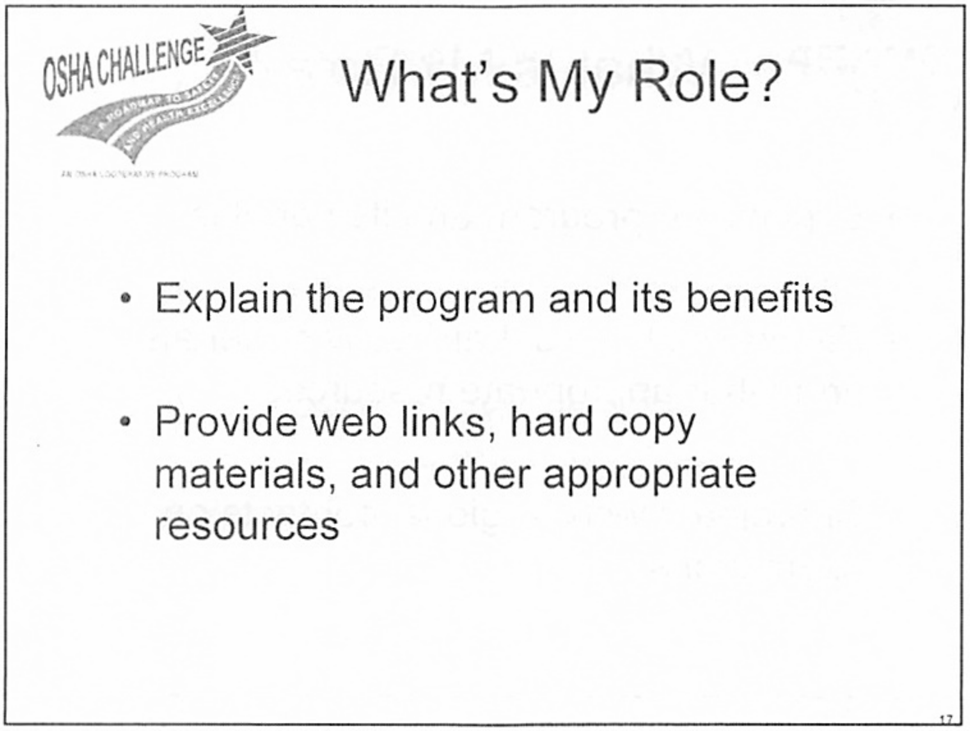
- The process guides participants from initial planning and development process through the implementation of an effective SHMS

1. Stage I: Assess, Learn & Develop
2. Stage II: Implement, Track & Control
3. Stage III: Reassess, Monitor & Improve



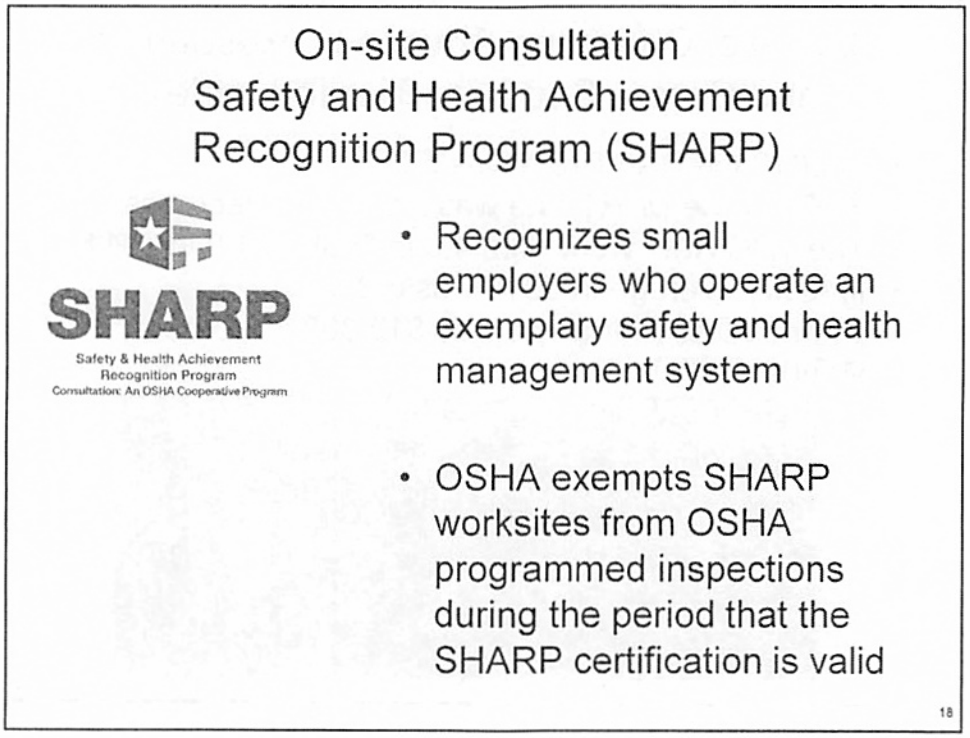
OSHA Challenge, Participation Benefits

- Increased focus on worker safety and health at all levels of the Challenge participant's organization.
- Increased worker involvement in safety and health issues.
- Increased chances of being contracted by a company due to having an effective safety and health management program (also known as "preferred bidders status").
- Increased profitability by providing better leverage for negotiating liability insurance and Workers' Compensation premiums.
- Improved and/or revised safety and health policies and procedures.
- Creation of a collaborative and positive relationship with OSHA.


OSHA CHALLENGE
A ROADMAP TO SAFETY AND HEALTH EXCELLENCE
AN OSHA COOPERATIVE PROGRAM

What's My Role?

- Explain the program and its benefits
- Provide web links, hard copy materials, and other appropriate resources



On-site Consultation Safety and Health Achievement Recognition Program (SHARP)

SHARP
Safety & Health Achievement Recognition Program
Consultation: An OSHA Cooperative Program

- Recognizes small employers who operate an exemplary safety and health management system
- OSHA exempts SHARP worksites from OSHA programmed inspections during the period that the SHARP certification is valid

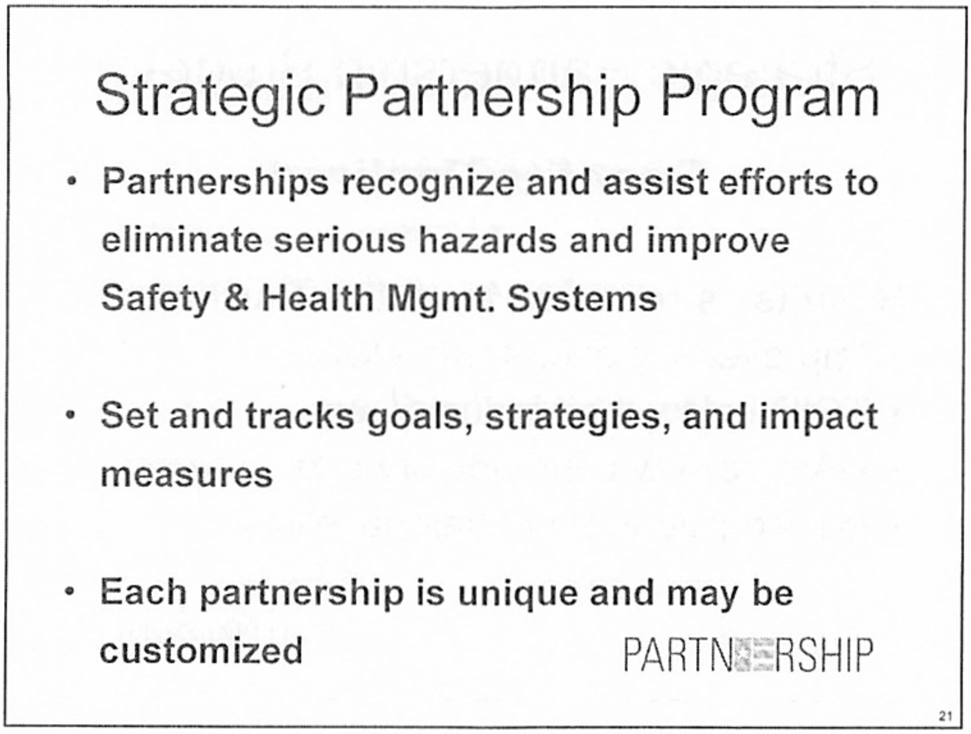
SHARP
Safety & Health Achievement Recognition Program
Consultation: An OSHA Cooperative Program

What Is My Role?

- Explain the program and its benefits
- Provide web links, hard copy materials, and other appropriate resources
- Coordinate with Regional contacts on exemptions

Success: Chemung Advocacy, Resources and Care – Southern Tier Industries

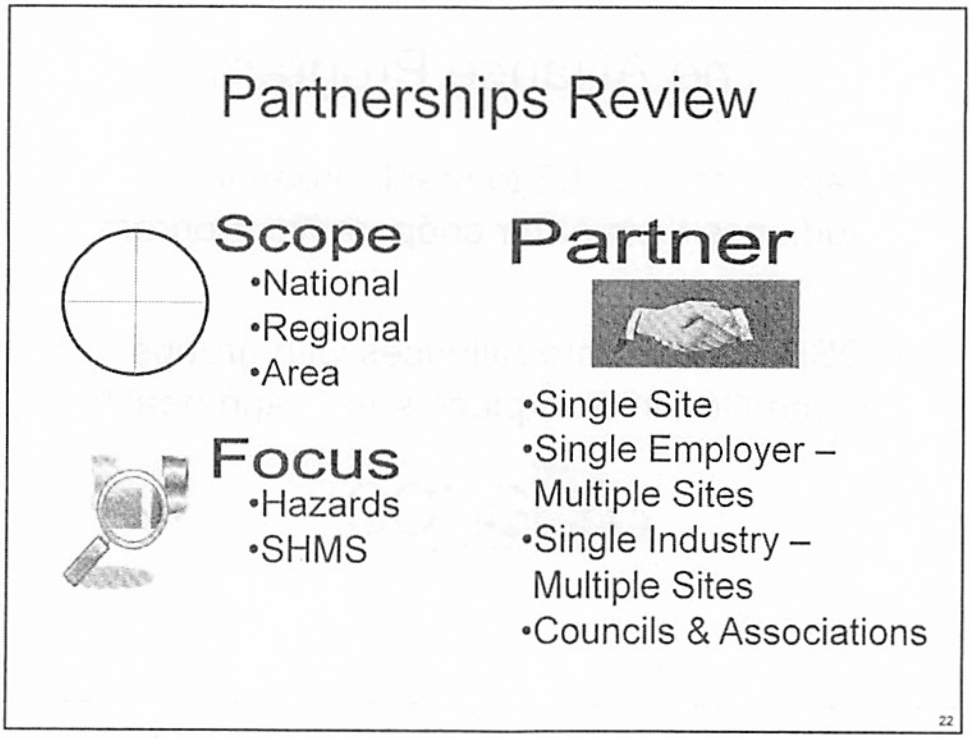
- In 2010 the DART rate was 6.0
- By 2011 the DART rate was 2.0 a 58% decrease.
- The TRC Rate went from 4.0 in 2009 to 1.0 in 2011.
- Industry average in 2011 was 6.2
- Savings first year alone was $12,300 in workers compensation.



Strategic Partnership Program

- **Partnerships recognize and assist efforts to eliminate serious hazards and improve Safety & Health Mgmt. Systems**
- **Set and tracks goals, strategies, and impact measures**
- **Each partnership is unique and may be customized**

PARTNERSHIP



Partnerships Review

Scope
- National
- Regional
- Area

Focus
- Hazards
- SHMS

Partner
- Single Site
- Single Employer – Multiple Sites
- Single Industry – Multiple Sites
- Councils & Associations

Strategic Partnership Program

Benefits Realized

Results as reported by active Partners:

- Improved Relations with OSHA
- TCIR below their industry avg.
- DART below their industry avg.
- I&I reductions from their baselines

PARTNERSHIP

The Alliance Program

- Launched in 2002 to reach broader audience than other cooperative programs
- OSHA enters into Alliances with groups committed to workplace safety and health

alliance
An OSHA Cooperative Program

The Alliance Program *(cont.)*

- Alliances help OSHA leverage resources to develop better compliance assistance tools and reach more employers and employees
- Established at OSHA's National, Regional, Area Offices or by State Plan States

alliance
An OSHA Cooperative Program

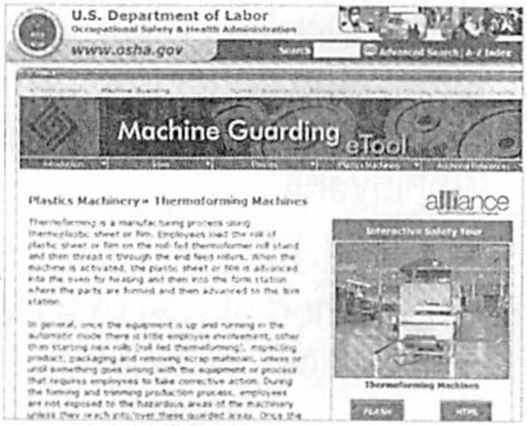
alliance
An OSHA Cooperative Program

Program Goals

- OSHA and the participating organizations must define, implement, and meet a set of short and long-term goals that fall into three categories:
  - **Training and education**
  - **Outreach and communication**
  - **Promoting the national dialogue on workplace safety and health**

Program Successes: eTools

- There are many eTools available. Here is one example


U.S. Department of Labor
Occupational Safety & Health Administration
www.osha.gov
Search
Advanced Search | A-Z Index
Machine Guarding eTool
alliance
Interactive Safety Tour
Thermoforming Machines
FLASH
HTML

Plastics Machinery» Thermoforming Machines

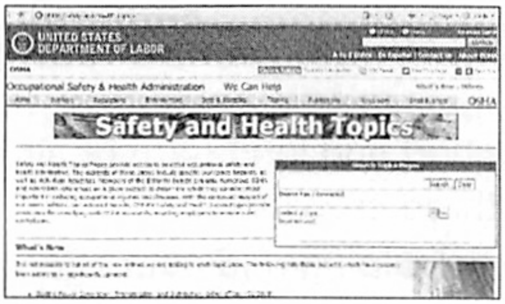
Thermoforming is a manufacturing process using thermoplastic sheet or film. Employees load the roll of plastic sheet or film on the roll-fed thermoformer roll stand and then thread it through the end feed rollers. When the machine is activated, the plastic sheet or film is advanced into the oven for heating and then into the form station where the parts are formed and then advanced to the trim station.

In general, once the equipment is up and running in the automatic mode there is little employee involvement, other than starting new rolls (roll fed thermoforming), inspecting product, packaging and removing scrap materials, unless or until something goes wrong with the equipment or process that requires employees to take corrective action. During the forming and trimming production process, employees are not exposed to the hazardous areas of the machinery unless they reach into/over these guarded areas. Once the

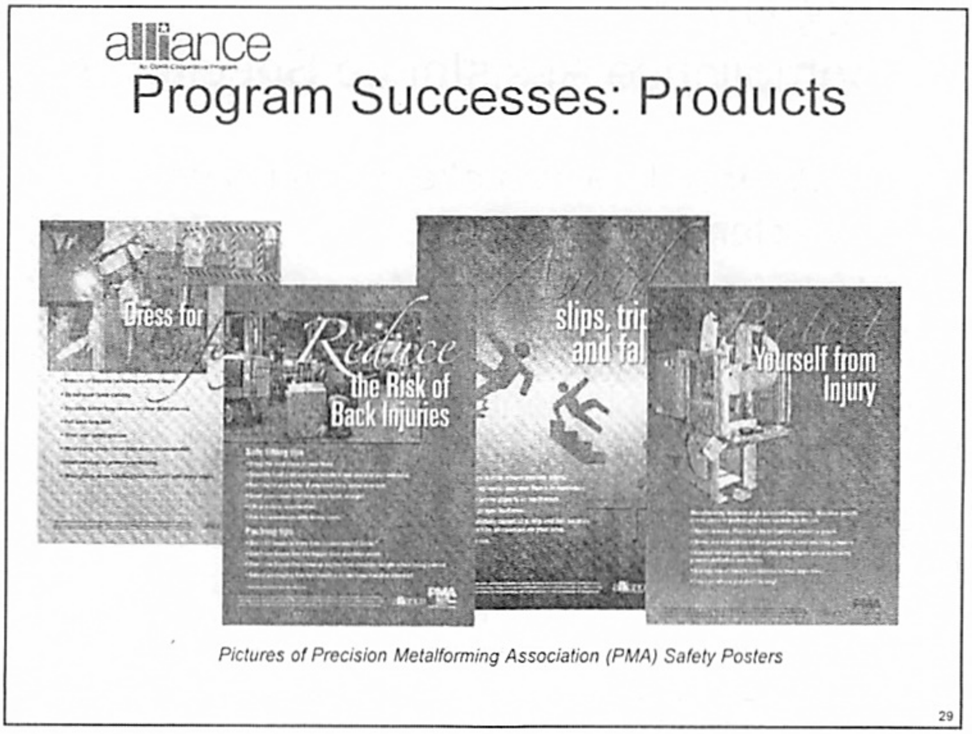
Screen Capture of OSHA's Thermoforming Machines Module of the Machine Guarding eTool.

Program Successes: S&H Topics

- Safety and Health Topics Pages are another program success


UNITED STATES
DEPARTMENT OF LABOR
OSHA
Occupational Safety & Health Administration
We Can Help
Safety and Health Topics
What's New

Screen Capture of OSHA's Safety and Health Topics Page



alliance

Program Successes: Products

Dress for
Reduce the Risk of Back Injuries
slips, tri
and fal
Protect Yourself from Injury
PMA

Pictures of Precision Metalforming Association (PMA) Safety Posters

alliance

Impact on Workplace S&H

"Perhaps the most important success of the Alliance Program, and the OSHA and Safe Tank Alliance, is the paradigm shift in how the relationship between industry and government is perceived and being recast as a model of partnership and collaboration.... The shift has become evident in the way the petroleum industry engages with OSHA. In the past there was little dialogue and both parties shared only information relevant to the issue at hand. The OSHA Alliance Program has knocked down those barriers."

Bill Erny, API
Member of the OSHA and Safe Tank Alliance

alliance

Compliance Assistance Specialists

The Alliance Program offers Compliance Assistance Specialists:

- Help from Regional and Area Office Alliances
- Serve on implementation teams for Regional and Area Office Alliances
- Promote OSHA's cooperative programs

alliance CSHO Role

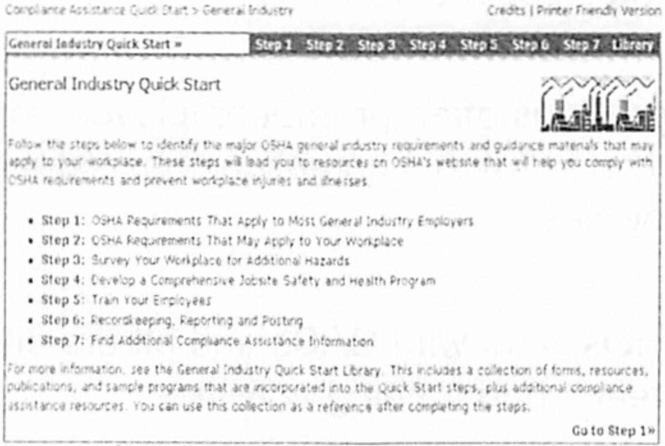
Compliance Safety and Health Officers (CSHOs):

- Serve on implementation teams for Regional and Area Office Alliances
- Help promote the Alliance Program and other cooperative programs

What is Compliance Assistance?

- **Narrow definition**: OSHA's efforts to help employers comply with the OSH Act and OSHA requirements
- **Broad definition**: OSHA's efforts to help employers and employees prevent workplace fatalities, injuries, and illnesses

Compliance Assistance Quick Start


Compliance Assistance Quick Start > General Industry
Credits | Printer Friendly Version
General Industry Quick Start »
Step 1
Step 2
Step 3
Step 4
Step 5
Step 6
Step 7
Library
Go to Step 1»

General Industry Quick Start

Follow the steps below to identify the major OSHA general industry requirements and guidance materials that may apply to your workplace. These steps will lead you to resources on OSHA's website that will help you comply with OSHA requirements and prevent workplace injuries and illnesses.

- **Step 1:** OSHA Requirements That Apply to Most General Industry Employers
- **Step 2:** OSHA Requirements That May Apply to Your Workplace
- **Step 3:** Survey Your Workplace for Additional Hazards
- **Step 4:** Develop a Comprehensive Jobsite Safety and Health Program
- **Step 5:** Train Your Employees
- **Step 6:** Recordkeeping, Reporting and Posting
- **Step 7:** Find Additional Compliance Assistance Information

For more information, see the General Industry Quick Start Library. This includes a collection of forms, resources, publications, and sample programs that are incorporated into the Quick Start steps, plus additional compliance assistance resources. You can use this collection as a reference after completing the steps.

Screen Capture of OSHA's General Industry Module of Compliance Assistance Quick Start

Specialist Activities

- Reach out to small businesses, associations, unions, and other groups
- Promote OSHA's cooperative programs
- Promote OSHA's training resources and tools on OSHA Web site
- Provide technical assistance

CSHO Role

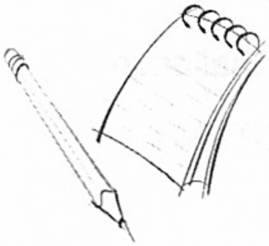
- CSHOs provide compliance assistance during inspections
- Inspections often prompt employers to seek out OSHA's compliance assistance resources
- CSHOs work with CASs and others on outreach and training activities

Cooperative Programs Online

Program	Website
VPP	https://www.osha.gov/dcsp/vpp/index.html
Onsite Consultation	https://www.osha.gov/dcsp/smallbusiness/consult.html
Challenge	https://www.osha.gov/dcsp/vpp/challenge.html
SHARP	https://www.osha.gov/dcsp/smallbusiness/sharp.html
Partnerships	https://www.osha.gov/dcsp/partnerships/index.html
Alliance Program	https://www.osha.gov/dcsp/alliances/index.html
Compliance Assistance	https://www.osha.gov/dcsp/compliance_assistance/index.html

Instructions for the Following Practice Questions

- ✓ For the following practice questions, ***write down*** your answers.



Which one of the following lists contains four (4) OSHA Cooperative Programs?

a. VPP, Consultation, Partnerships and Alliances

b. VPP, Consultation Site specific Targeting and eTools

c. VPP, Consultation, National Emphasis Programs, and Global Partnerships

d. VPP, Consultation, Small Business Alliances, and Compliance Assistance Specialists

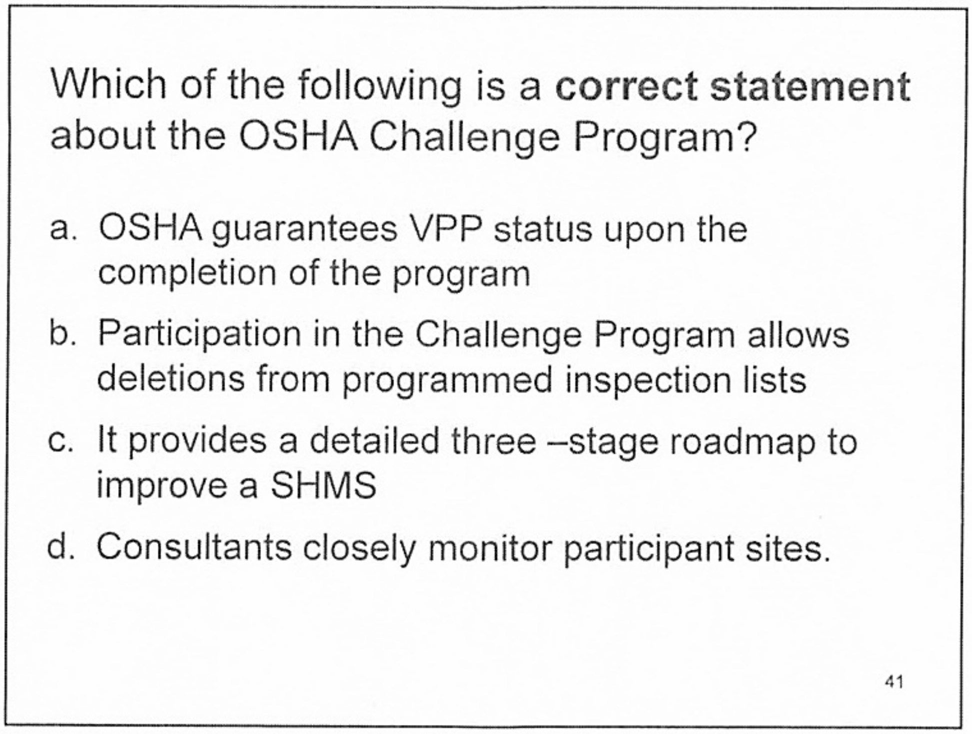
Employers that have an on-site OSH consultation visit with a complete hazard identification survey, and meet other requirements, may be recognized under this program for their exemplary safety and health management systems.

a. Merit

b. SHARP

c. Challenge

d. STAR



Which of the following is a **correct statement** about the OSHA Challenge Program?

a. OSHA guarantees VPP status upon the completion of the program
b. Participation in the Challenge Program allows deletions from programmed inspection lists
c. It provides a detailed three –stage roadmap to improve a SHMS
d. Consultants closely monitor participant sites.

COOPERATIVE PROGRAMS WEB LINKS

The following are some suggested web links that provide additional information on cooperative programs.

COMPLIANCE ASSISTANCE/COOPERATIVE PROGRAMS

- **Compliance Assistance Web Page**

  http://www.osha.gov/dcsp/compliance_assistance/index.htm

  From this site you can access resources to help you prevent occupational injuries and illnesses, comply with the Occupational Safety and Health Act, and learn about OSHA's cooperative programs.

- **Cooperative Programs Page**

  http://www.osha.gov/dcsp/compliance_assistance/index_programs.html

  This site provides links to OSHA's cooperative programs. It also links to a page that provides help to employers in finding a cooperative program that is right for them.

  The Compliance Assistance and Cooperative Program webpages describe the resources that exist for those companies that are interested in working with OSHA to build a relationship or to actively pursue the improvement of their own safety and health management systems. These pages give a breakdown of which programs might be appropriate for a particular business, as well as providing links to helpful materials and information.

- **Compliance Assistance Intranet Page**

  http://intranet.osha.gov/dcsp/LAP/dcsp/compliance_assistance/index.html

  Information on OSHA's compliance assistance activities and resources intended for OSHA staff only are available on this page.

VPP

- **VPP Public Page**

  www.osha.gov/vpp

  This page lists program and participant information, and links to a VPP library of materials.

COOPERATIVE PROGRAMS WEB LINKS

- **VPP Intranet Web Page**

  http://intranet.osha.gov/dcsp/LAP/dcsp/vpp/index.html

  The VPP Limited Access Page was developed as a communication tool for OSHA personnel to share information on VPP activities and initiatives.

- **VPP Publications**

  http://www.osha.gov/pls/publications/publication.html

  This page lists VPP publications and flyers, as well as OSHA fact sheets and additional resources related to VPP.

CONSULTATION

- **On-Site Consultation and SHARP Public Home Page**

  http://www.osha.gov/dcsp/smallbusiness/consult.html

  This page provides program information as well as a map to locate the local consultation office.

- **Onsite Consultation Services**

  http://www.osha.gov/dcsp/smallbusiness/consult.html

  This page provide links to:

  - Onsite Consultation Program Information
  - Onsite Consultation Data
  - Small Business Resources:
    - Compliance Assistance,
    - Publications,
    - Electronic Assistance Tools,
    - Success Stories

COOPERATIVE PROGRAMS WEB LINKS

STRATEGIC PARTNERSHIP PROGRAM

- **Partnerships Public Home Page**

  www.osha.gov/partnerships

  This page provides program and partner information, as well as partnership activities and success stories.

- **Partnerships Intranet Page**

  http://intranet.osha.gov/dcsp/LAP/dcsp/partnerships/index.html

  This page is designed to serve as a valuable tool for OSHA staff as they develop, implement, manage, and assess OSHA Strategic Partnerships (OSPs).

- **Partnership Fact Sheet**

  https://www.osha.gov/Publications/OSHA3734.pdf

ALLIANCES

- **Alliance Program Public Page**

  http://www.osha.gov/dcsp/alliances/index.html

  This page lists National Office Alliances by name and area of emphasis, in addition to activities/success and program information. Information on Regional, Area Office, and State Plan State Alliances is also accessible from this page.

- **Alliance Program Intranet Page**

  http://intranet.osha.gov/dcsp/LAP/dcsp/alliances/index.html

  This page provides information on alliances for OSHA staff.

OSHA's Cooperative Programs Overview

VPP

Voluntary Protection Programs
An OSHA Cooperative Program

The Voluntary Protection Programs (VPPs) promote effective worksite-based safety and health. In the VPP, management, labor, and OSHA establish cooperative relationships at workplaces that have implemented a comprehensive safety and health management system. Approval into VPP is OSHA's official recognition of the outstanding efforts of employers and employees who have achieved exemplary occupational safety and health.

OSHA Challenge uses the Voluntary Protection Programs (VPP) model as a foundation to provide a roadmap to eligible employers interested in implementing effective safety and health management systems. Volunteer Administrators help guide the participants through a three-stage process. Graduates of OSHA Challenge receive recognition from OSHA and an invitation to apply for VPP with possible expedited approval. OSHA Challenge is available to general industry and construction employers in private and public sectors under OSHA's federal jurisdiction.

OSHA CHALLENGE
A ROADMAP TO SAFETY AND HEALTH EXCELLENCE
AN OSHA COOPERATIVE PROGRAM

SHARP
Safety & Health Achievement
Recognition Program
Consultation: An OSHA Cooperative Program

The Safety and Health Achievement Recognition Program (SHARP) recognizes small employers who operate an exemplary safety and health management system. Acceptance into SHARP by OSHA is an achievement of status that will single you out among your business peers as a model for worksite safety and health. Upon receiving SHARP recognition, your worksite will be exempt from programmed inspections during the period that your SHARP certification is valid.

https://www.osha.gov/dcsp/compliance_assistance/index_programs.html

OSHA's Cooperative Programs Overview

PARTNERSHIP
An OSHA Cooperative Program

OSHA's mission is to assure safe and healthful working conditions for working men and women. The OSHA Strategic Partnership Program (OSPP) provides opportunities for OSHA to partner with employers, employees, professional or trade associations, labor organizations, State On-site Consultation projects, and other interested stakeholders. These voluntary Partnerships are designed to encourage, assist, and recognize efforts to eliminate serious hazards and achieve model workplace safety and health practices. Each Partnership develops its own unique, formal agreement that establishes specific goals, strategies, and performance measures. Partnerships are available to all private sector industries and government agencies where OSHA has jurisdiction.

Alliance Program

alliance

Through the Alliance Program, OSHA works with groups committed to safety and health, including businesses, trade or professional organizations, unions and educational institutions, to leverage resources and expertise to develop compliance assistance tools and resources and share information with employers and employees to help prevent injuries, illnesses and fatalities in the workplace. OSHA and the organization sign a formal agreement with goals that address training and education, outreach and communication, and promoting the national dialogue on workplace safety and health.

https://www.osha.gov/dcsp/compliance_assistance/index_programs.html

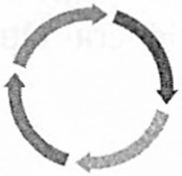
Safety & Health Management Systems

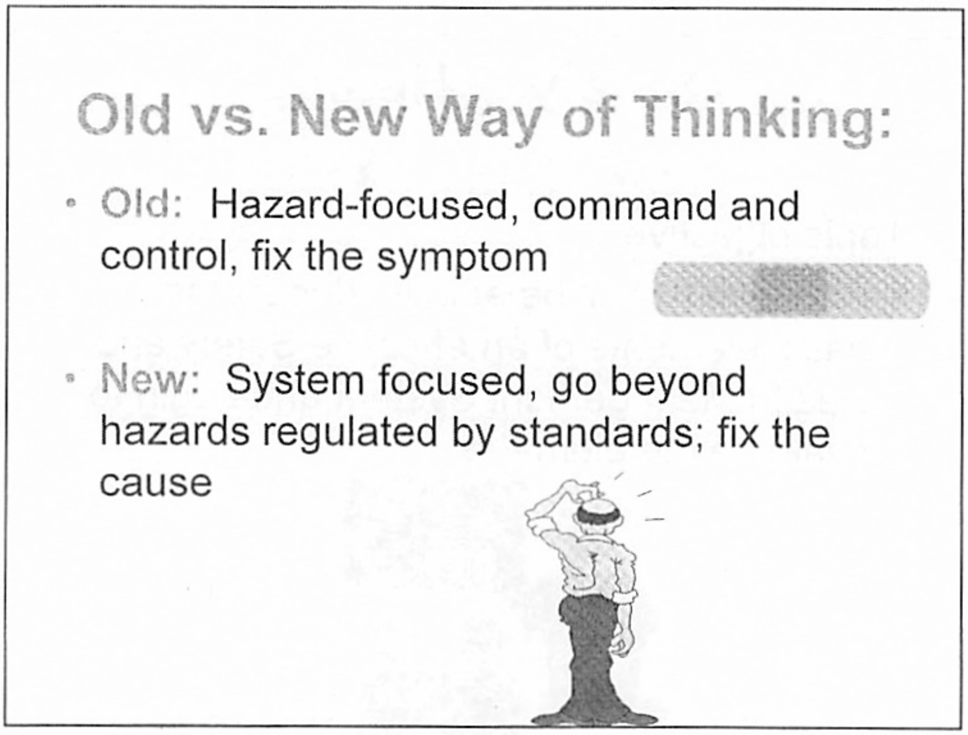
Topic objective

- Participants will be able to identify the basic elements of an effective Safety and Health Management System and begin to evaluate the elements

Safety and Health Management System

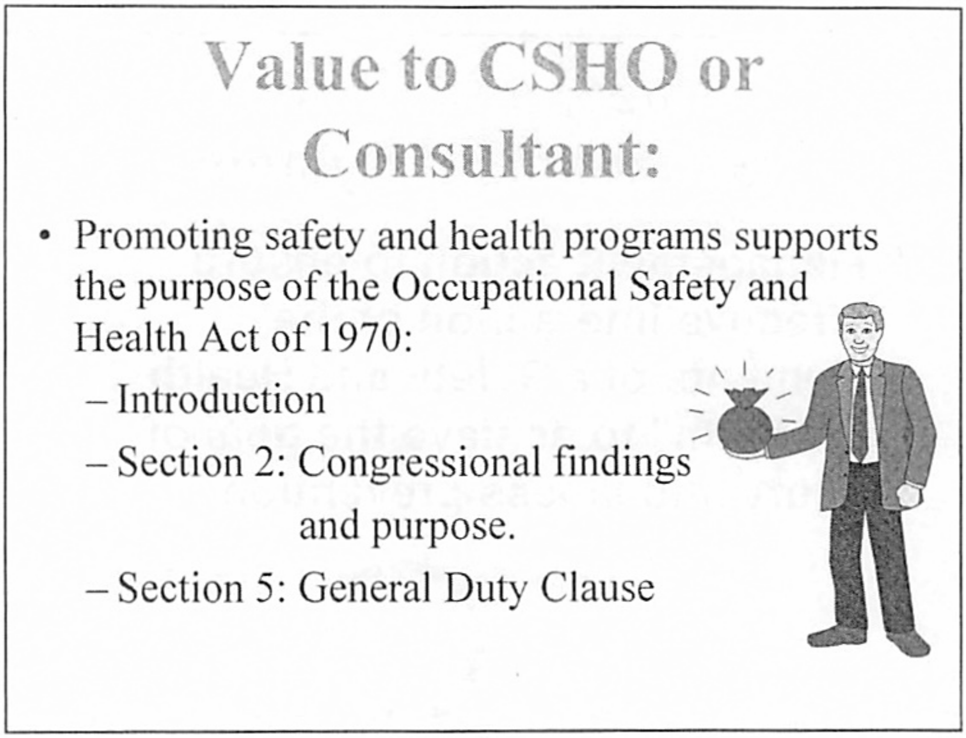
“ Management action to ensure effective interaction of the elements of a Safety and Health Program” to achieve the goal of injury and illness prevention





Old vs. New Way of Thinking:

- Old: Hazard-focused, command and control, fix the symptom
- New: System focused, go beyond hazards regulated by standards; fix the cause



Value to CSHO or Consultant:

- Promoting safety and health programs supports the purpose of the Occupational Safety and Health Act of 1970:
  - Introduction
  - Section 2: Congressional findings and purpose.
  - Section 5: General Duty Clause

OSHA's *Field Operations Manual*

Evaluation of Safety and Health System (Chapter 3.VII.B.)

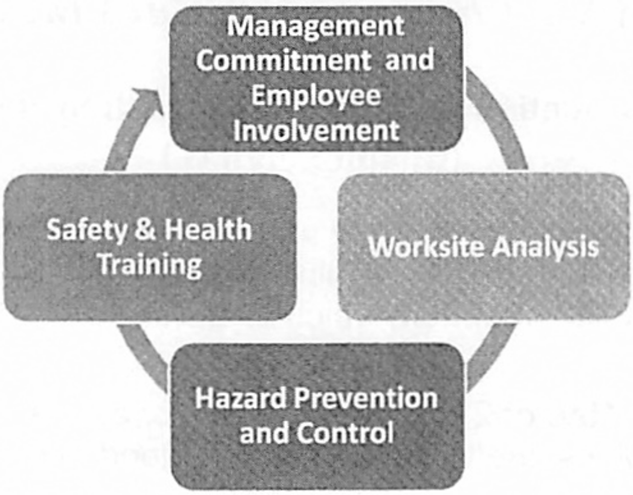
- "The employer's safety and health system shall be evaluated to determine its good faith for the purposes of penalty calculation."
- Only 15% or 25% may be used to reduce penalties due to the employer's good faith

Good Faith Reduction

- Reduction is NOT permitted
  - High gravity serious violations
  - Willful violation
  - Repeated violations
  - Failure to abate violation
  - Failure to certify abatement
  - Failure to notify employees and tagging movable equipment
  - No safety and health management system
  - Major deficiencies in the SHMS

OSHA's FOM Chapter 6 (Section III.B.3.a.)

The Elements:



Management Commitment and Employee Involvement

Worksite Analysis

Hazard Prevention and Control

Safety & Health Training

From the **1989 Guidelines** published in the Federal Register

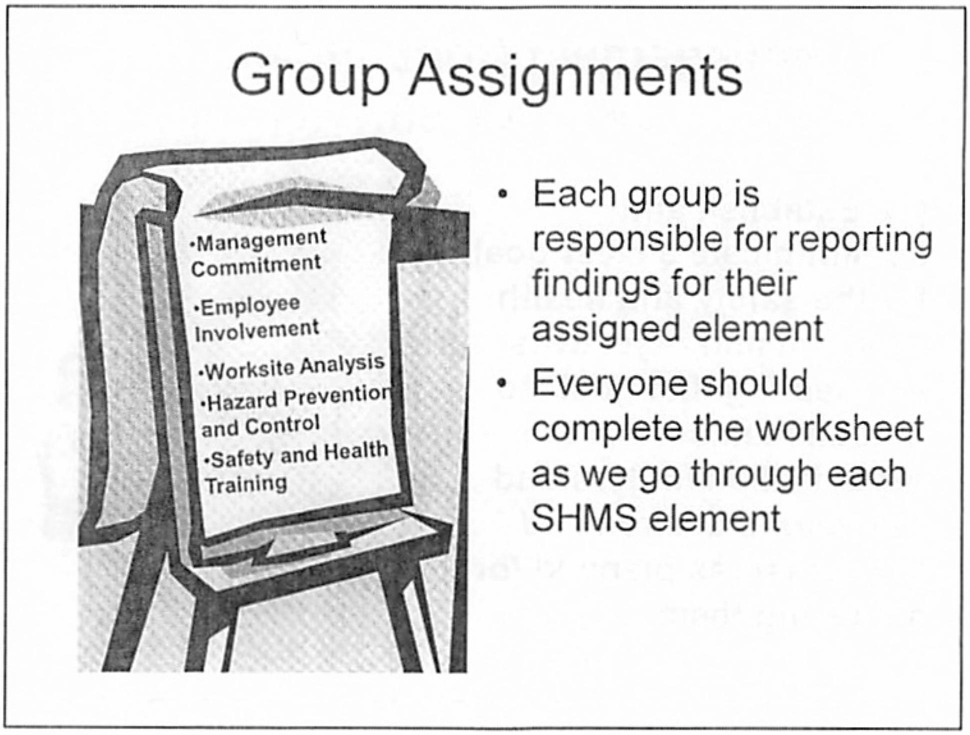
How do I Assess the Safety & Health Program Elements?

Write down your answers!

1. ______________________________

2. ______________________________

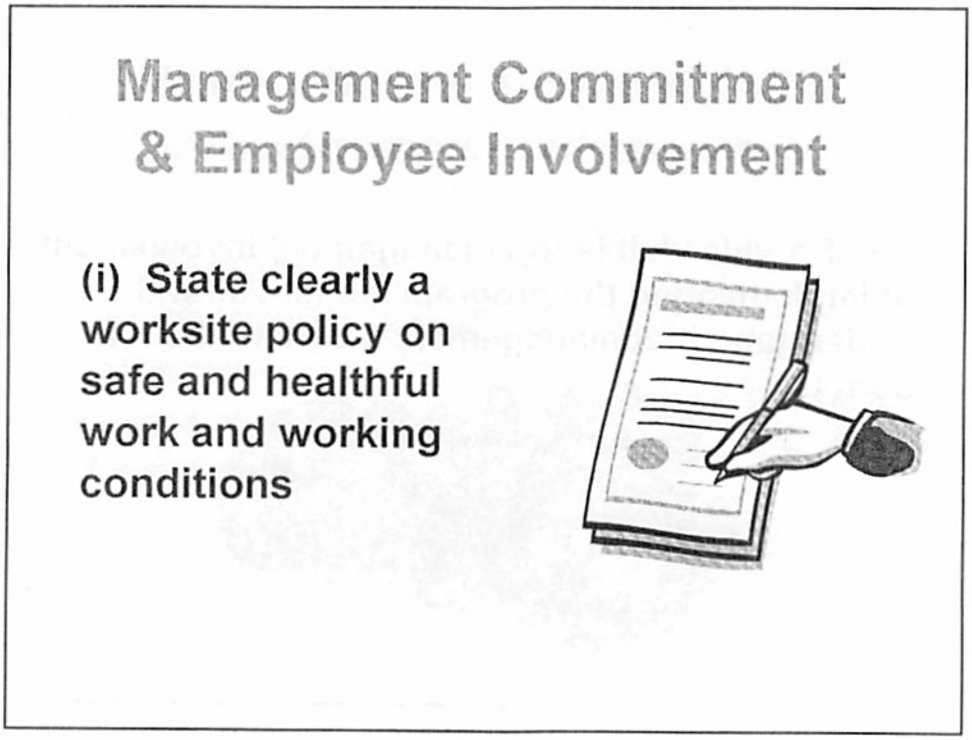
3. ______________________________



Group Assignments

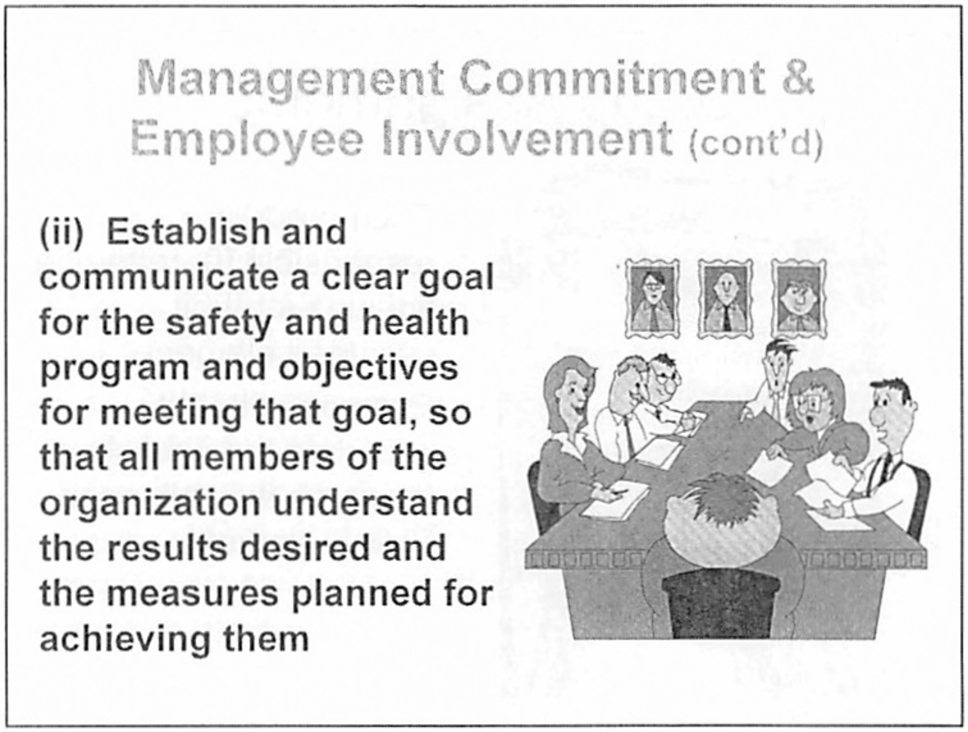
•Management Commitment
•Employee Involvement
•Worksite Analysis
•Hazard Prevention and Control
•Safety and Health Training

- Each group is responsible for reporting findings for their assigned element
- Everyone should complete the worksheet as we go through each SHMS element



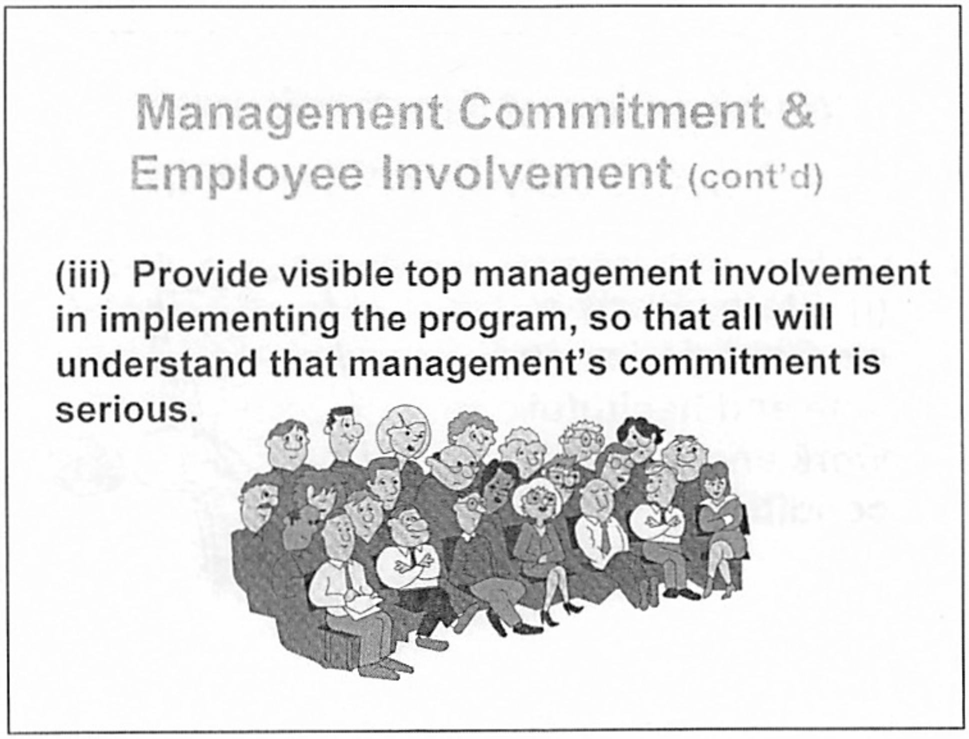
Management Commitment & Employee Involvement

(i) State clearly a worksite policy on safe and healthful work and working conditions



Management Commitment & Employee Involvement (cont'd)

(ii) Establish and communicate a clear goal for the safety and health program and objectives for meeting that goal, so that all members of the organization understand the results desired and the measures planned for achieving them



Management Commitment & Employee Involvement (cont'd)

(iii) Provide visible top management involvement in implementing the program, so that all will understand that management's commitment is serious.

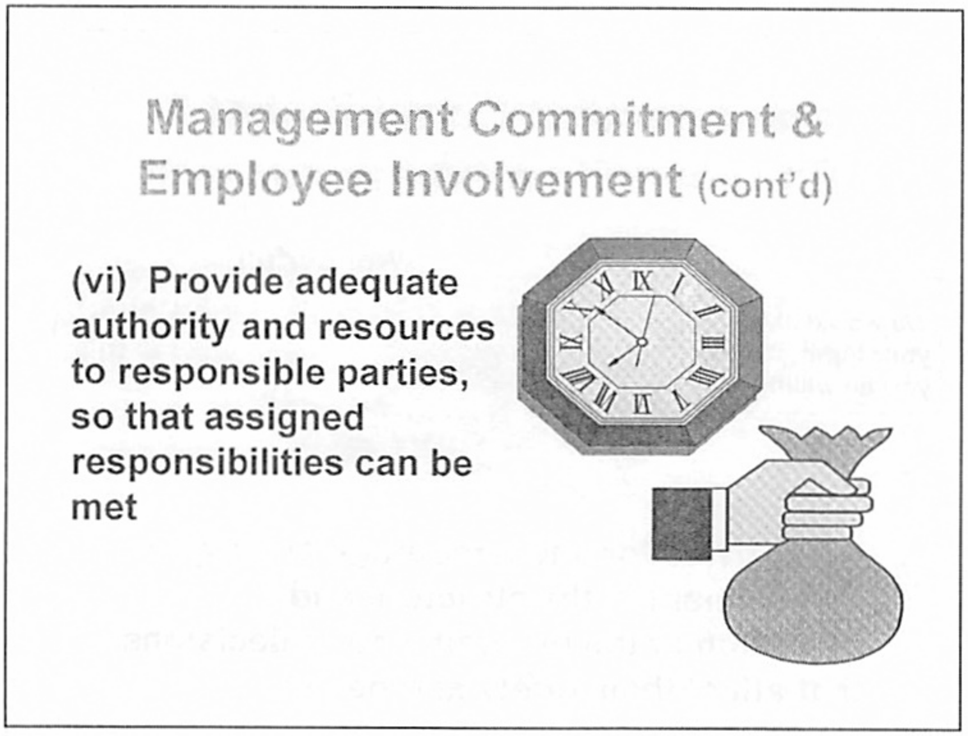
Management Commitment & Employee Involvement (cont'd)

We would like your input, would you be willing?
Wonderful!
Count me in!

(iv) Provide for and encourage employee involvement in the structure and operation of the program and in decisions that affect their safety and health

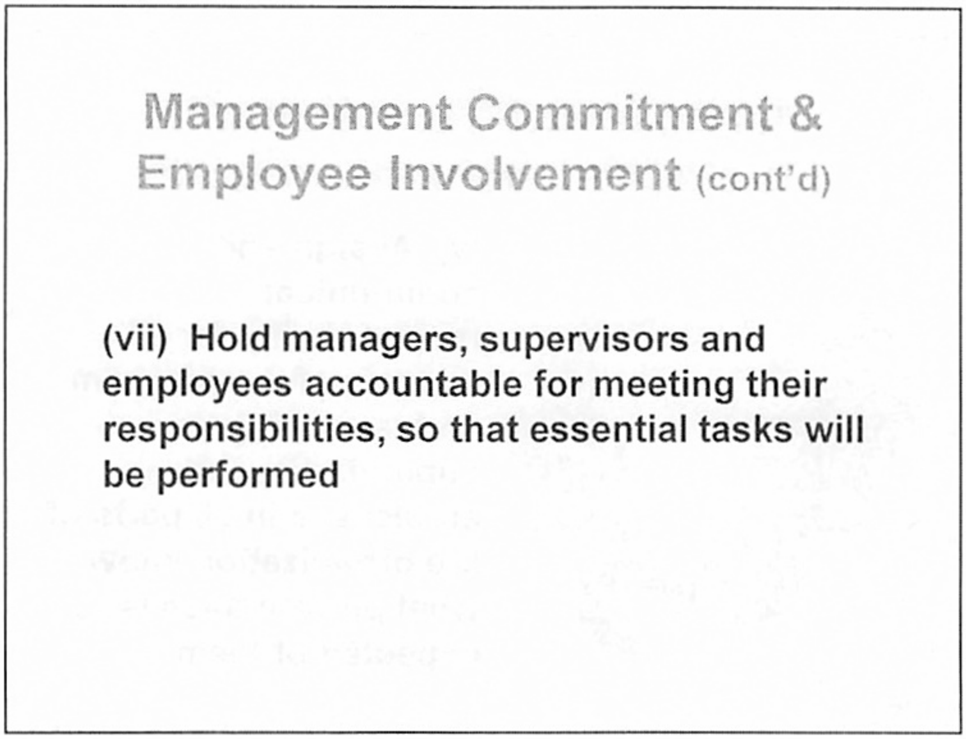
Management Commitment & Employee Involvement (cont'd)

(v) Assign and communicate responsibility for all aspects of the program, so that managers, supervisors, and employees in all parts of the organization know what performance is expected of them



Management Commitment & Employee Involvement (cont'd)

(vi) Provide adequate authority and resources to responsible parties, so that assigned responsibilities can be met



Management Commitment & Employee Involvement (cont'd)

(vii) Hold managers, supervisors and employees accountable for meeting their responsibilities, so that essential tasks will be performed

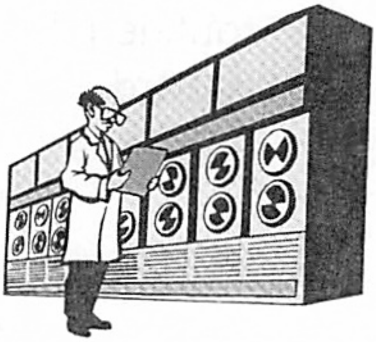
Management Commitment & Employee Involvement (cont'd)

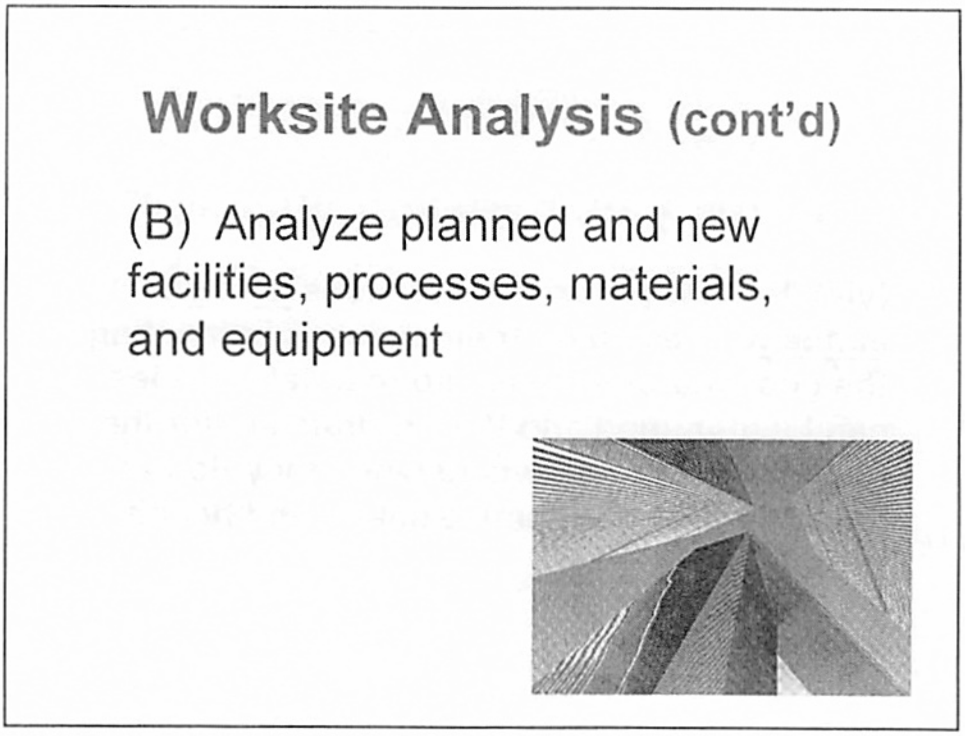
(viii) Review program operations at least annually to evaluate their success in meeting the goal and objectives, so that deficiencies can be identified and the program and/or the objectives can be revised when they do not meet the goal of effective safety and health protection

Worksite Analysis (Hazard Identification and Risk Analysis):

(i) So that all hazards are identified:

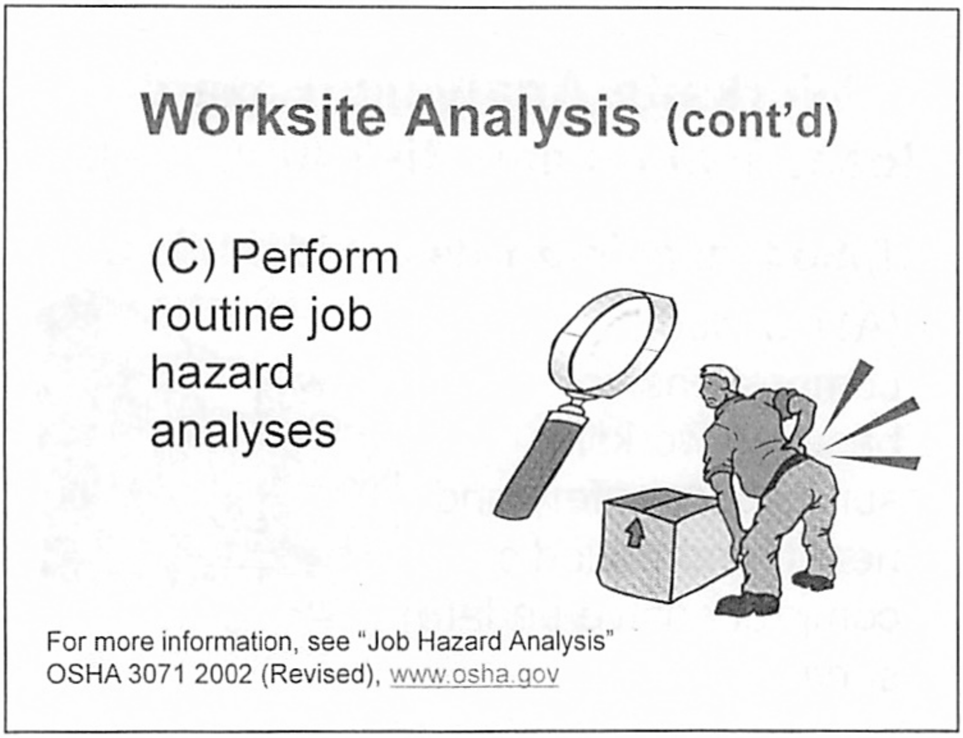
(A) Conduct comprehensive baseline worksite surveys for safety and health and periodic comprehensive update surveys





Worksite Analysis (cont'd)

(B) Analyze planned and new facilities, processes, materials, and equipment



Worksite Analysis (cont'd)

(C) Perform routine job hazard analyses

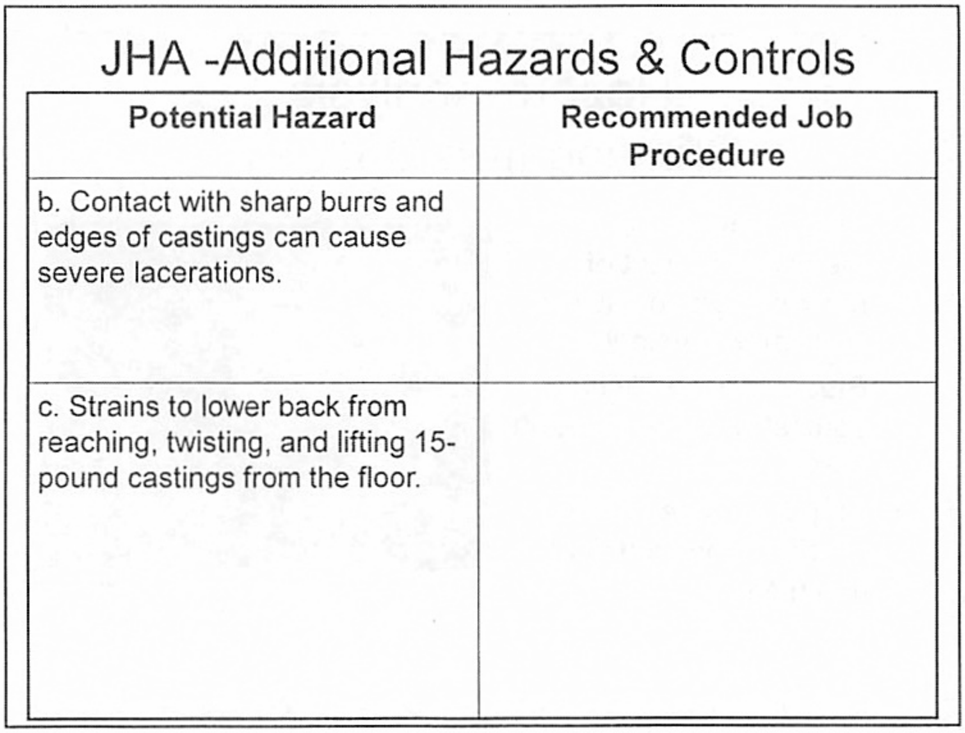
For more information, see "Job Hazard Analysis" OSHA 3071 2002 (Revised), www.osha.gov

Hazard Analysis
Grinding Iron Castings

- Step 1 – Reach into metal box to right of machine, grasp casting, and carry to wheel.
- Step 2 – Push casting against wheel to grind off burr.
- Step 3 – Place finished casting in box to left of machine.

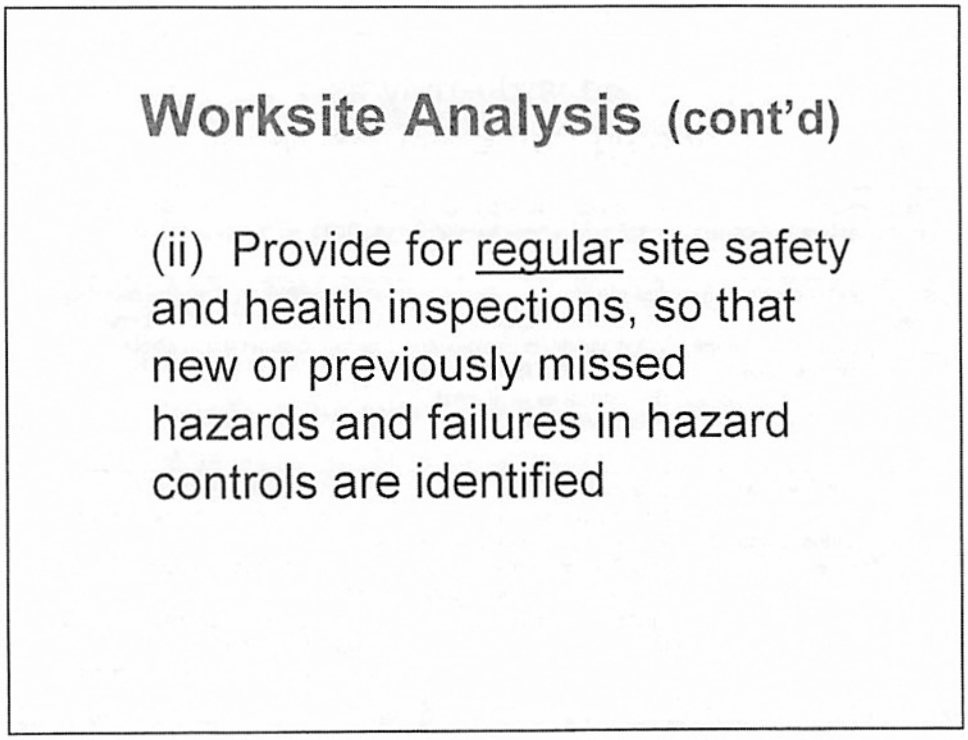
Hazard Analysis
Grinding Iron Castings (cont'd)

Task Description: Worker reaches into metal box to the right of the machine, grasps a 15-pound casting and carries it to grinding wheel. Worker grinds 20 to 30 castings per hour.			
Sequence of Basic Job Steps Break job into basic steps that tell what is done first.		**Potential Accidents/Hazards:** What accidents could occur to the person doing the step (I.e., struck by or against; caught in, fall, etc.).	**Recommended Job Procedures** What exactly should the person do or not do to avoid the accident.
1.	Reach into metal box to right of machine, grasp casting, and carry to wheel.	a. Struck by falling parts. Picking up casting, employee could drop it onto foot. The casting's weight and height could seriously injure the worker's foot or toes.	1. Remove castings from box and place them on a table next to the grinder. 2. Wear steel-toed shoes with arch protection. 3. Change to protective gloves that allow a better grip. 4. Use a device to pick up castings.



JHA -Additional Hazards & Controls

Potential Hazard	Recommended Job Procedure
b. Contact with sharp burrs and edges of castings can cause severe lacerations.	
c. Strains to lower back from reaching, twisting, and lifting 15-pound castings from the floor.	



Worksite Analysis (cont'd)

(ii) Provide for regular site safety and health inspections, so that new or previously missed hazards and failures in hazard controls are identified

Worksite Analysis (cont'd)

(iii) Provide a reliable system for employees, without fear of reprisal, to notify management personnel about conditions that appear hazardous and to receive timely and appropriate responses

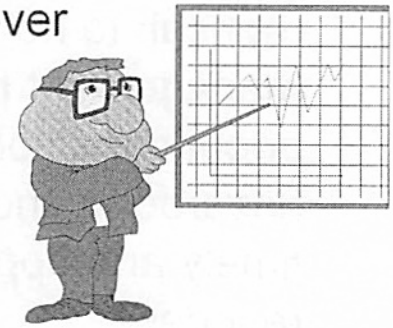
Worksite Analysis (cont'd)

(iv) Provide for investigation of accidents and "near-miss" incidents

(source/cause approach)

Worksite Analysis (cont'd)

(v) Analyze injury, illness, accident, and near-miss trends over time



Hazard Prevention and Control

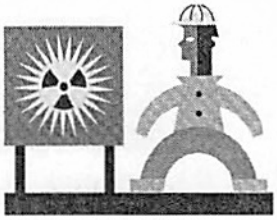
(i) So that all current and potential hazards, however detected, are corrected and controlled in a timely manner; establish procedures for that purpose, using the following measures:

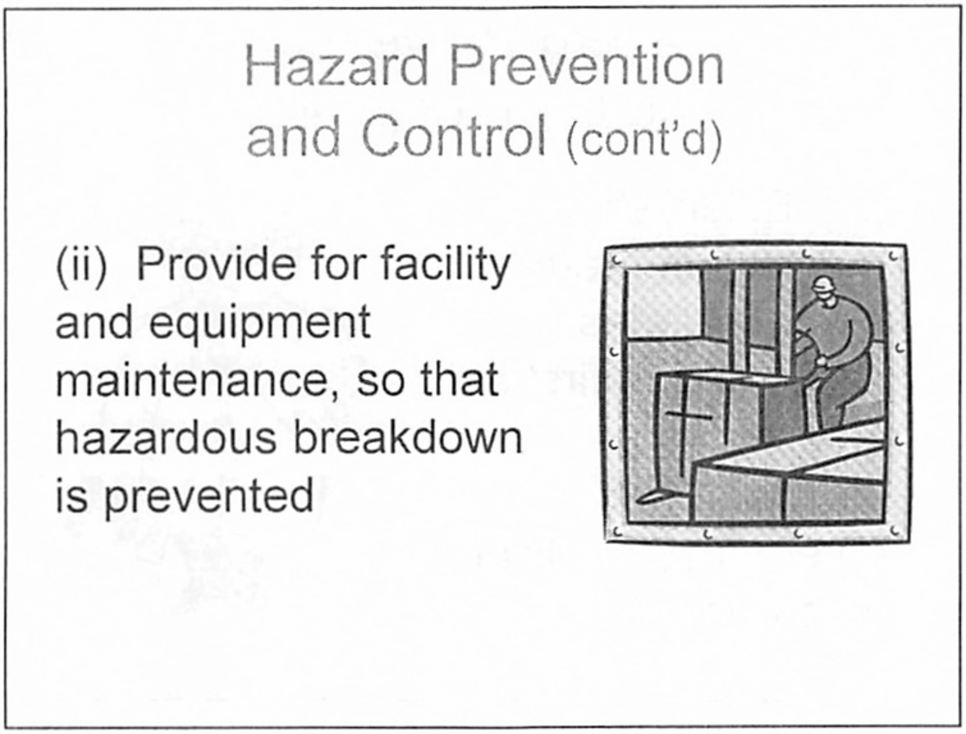
(A) Engineering techniques

(B) Administrative controls

- Procedures for safe work

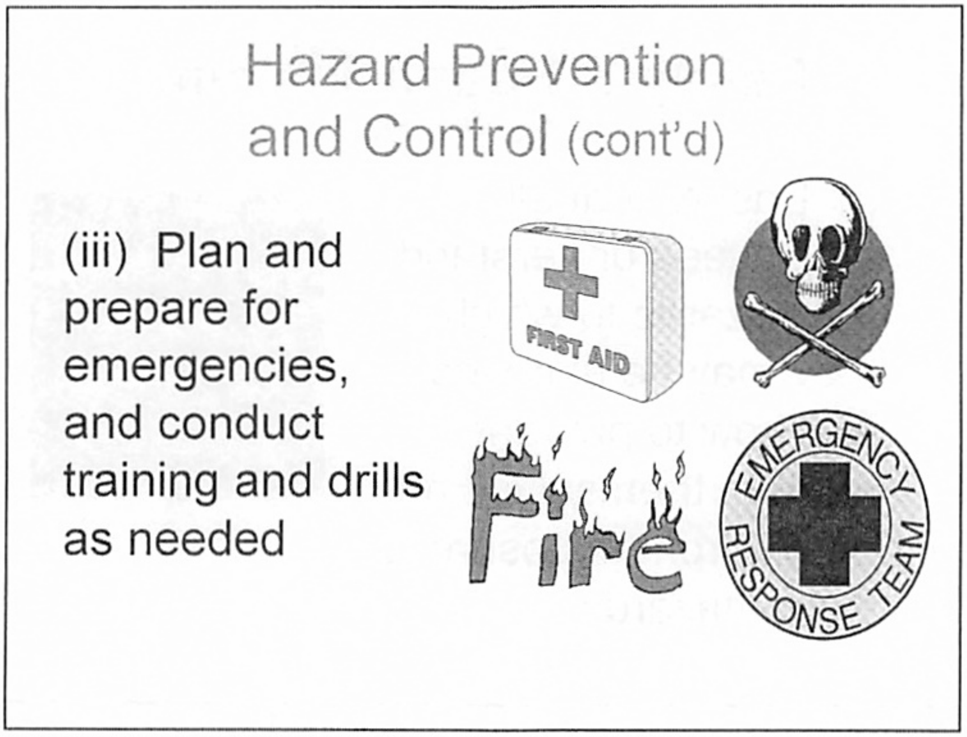
(C) Provision of PPE





Hazard Prevention and Control (cont'd)

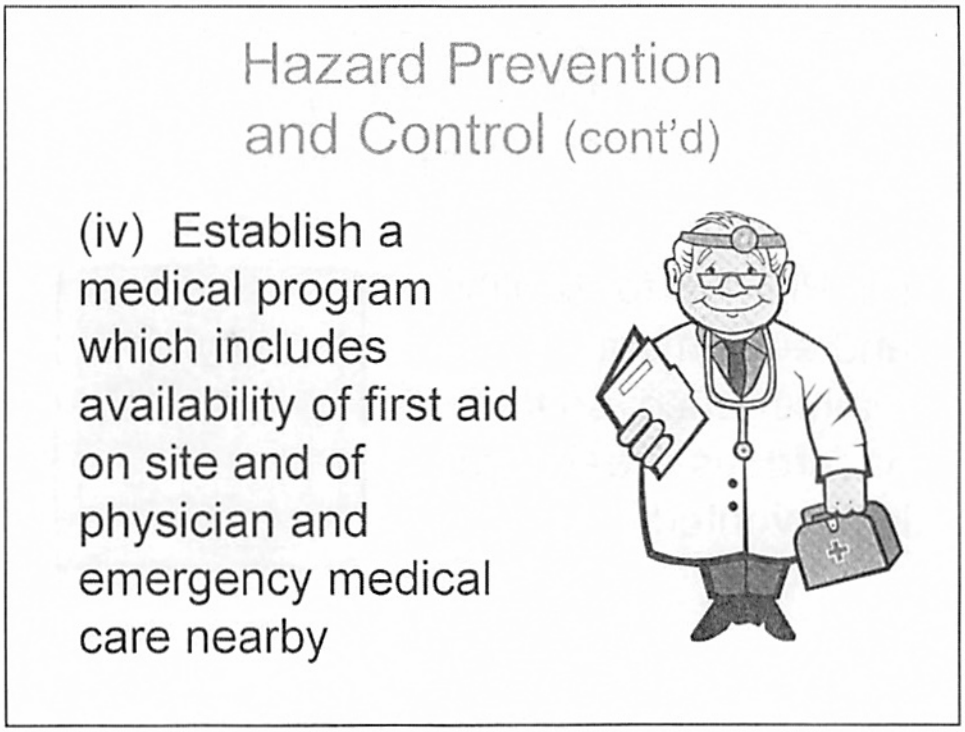
(ii) Provide for facility and equipment maintenance, so that hazardous breakdown is prevented



Hazard Prevention and Control (cont'd)

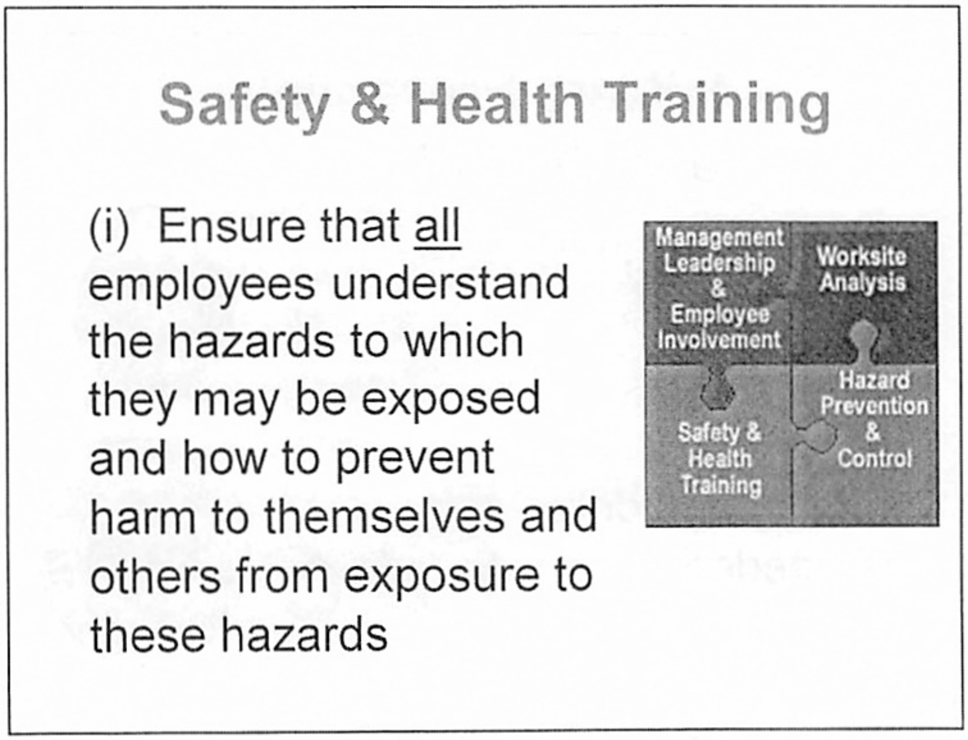
(iii) Plan and prepare for emergencies, and conduct training and drills as needed

FIRST AID
Fire
EMERGENCY RESPONSE TEAM



Hazard Prevention and Control (cont'd)

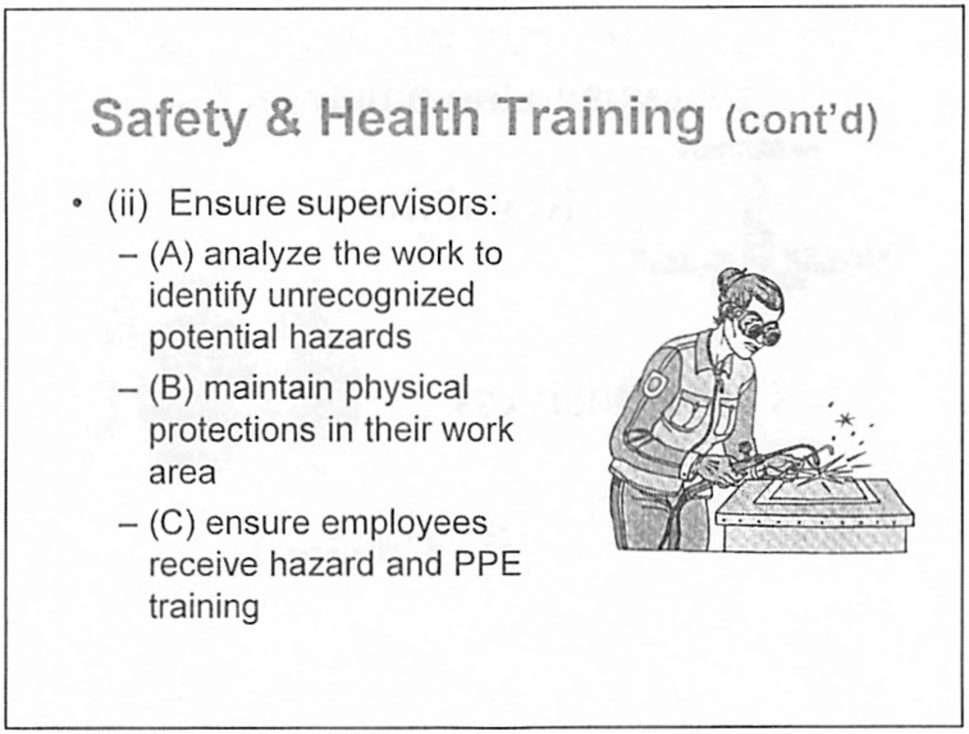
(iv) Establish a medical program which includes availability of first aid on site and of physician and emergency medical care nearby



Safety & Health Training

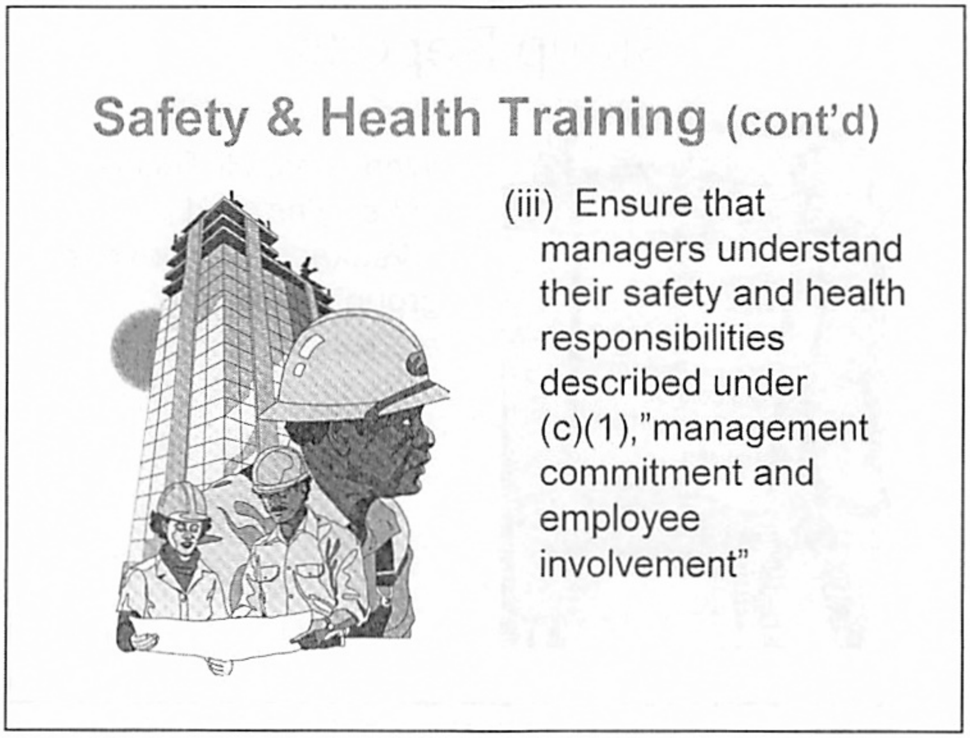
(i) Ensure that all employees understand the hazards to which they may be exposed and how to prevent harm to themselves and others from exposure to these hazards

Management Leadership & Employee Involvement
Worksite Analysis
Safety & Health Training
Hazard Prevention & Control



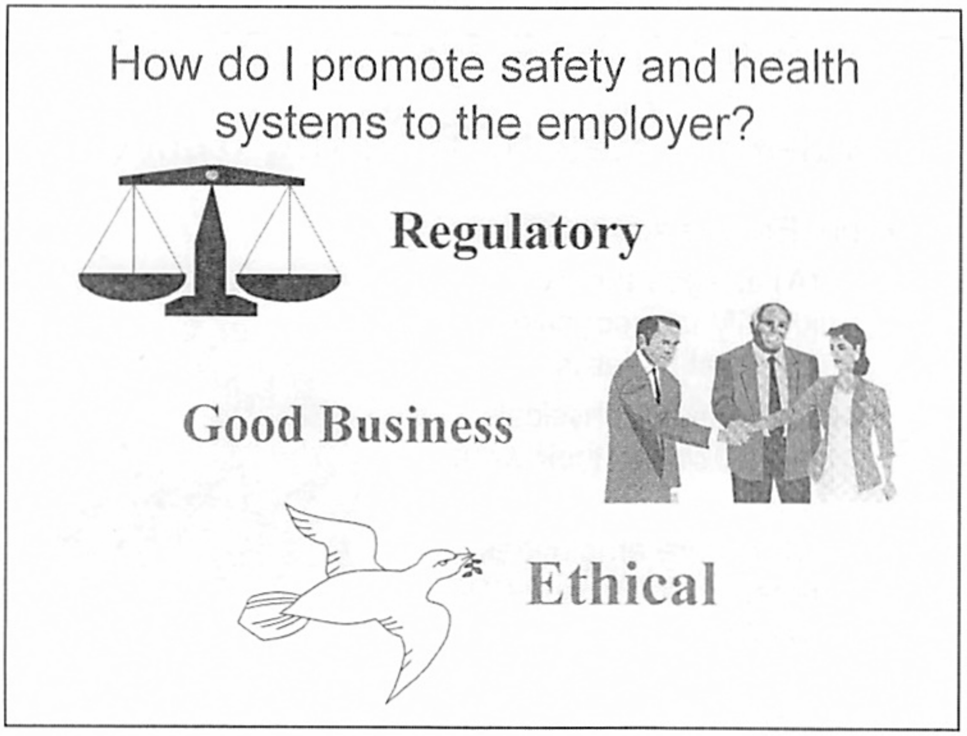
Safety & Health Training (cont'd)

- (ii) Ensure supervisors:
  - (A) analyze the work to identify unrecognized potential hazards
  - (B) maintain physical protections in their work area
  - (C) ensure employees receive hazard and PPE training



Safety & Health Training (cont'd)

(iii) Ensure that managers understand their safety and health responsibilities described under (c)(1),"management commitment and employee involvement"

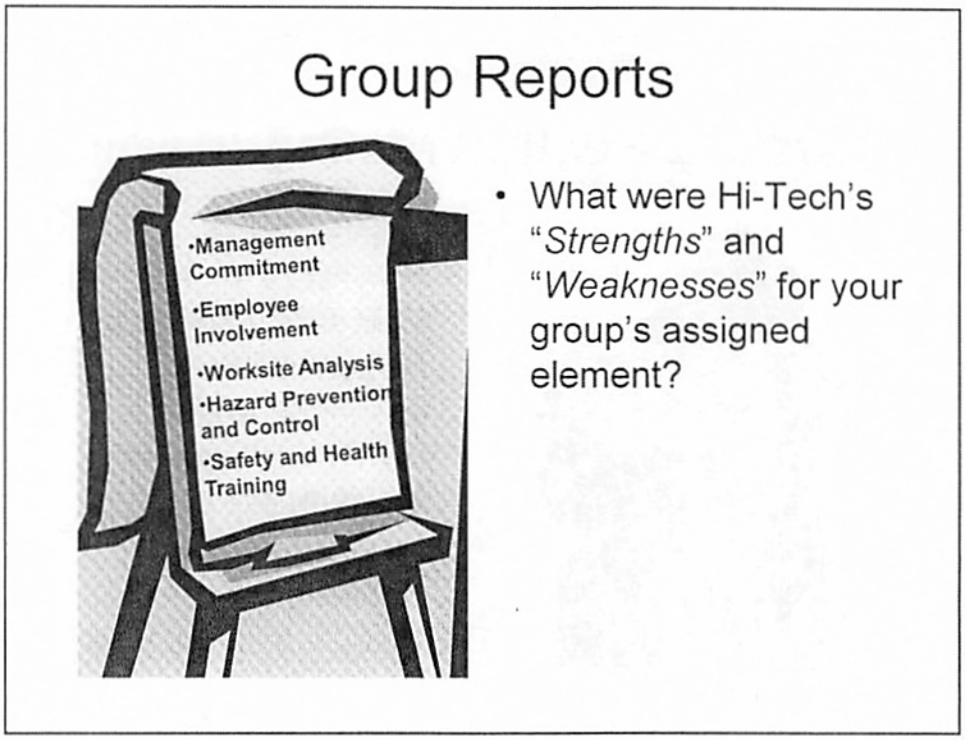


How do I promote safety and health systems to the employer?

Regulatory

Good Business

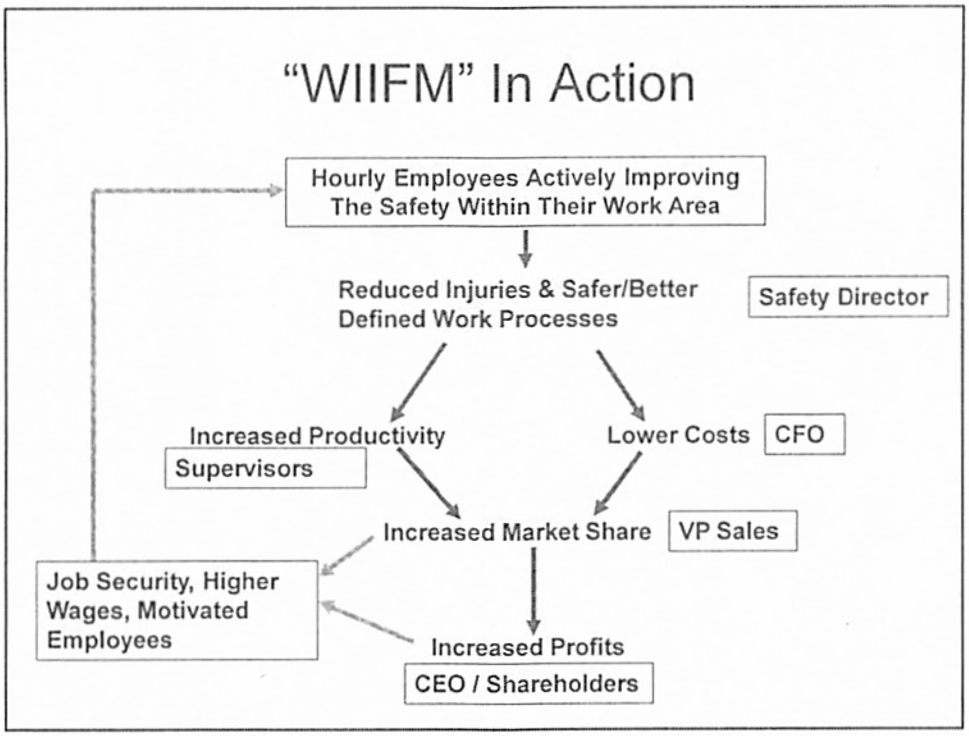
Ethical



Group Reports

- Management Commitment
- Employee Involvement
- Worksite Analysis
- Hazard Prevention and Control
- Safety and Health Training

- What were Hi-Tech's "*Strengths*" and "*Weaknesses*" for your group's assigned element?



“WIIFM” In Action

Hourly Employees Actively Improving The Safety Within Their Work Area

Reduced Injuries & Safer/Better Defined Work Processes

Safety Director

Increased Productivity

Supervisors

Lower Costs

CFO

Increased Market Share

VP Sales

Job Security, Higher Wages, Motivated Employees

Increased Profits

CEO / Shareholders

Federal Registers

Safety and Health Program Management Guidelines; Issuance of Voluntary Guidelines - 54:3904-3916 (1/26/1989)

Safety and Health Management Guidelines

Scope and Application. (1) This guideline applies to all places of employment which are covered by OSHA standards in 29 CFR Parts 1910, 1915, 1917 and 1918.

(2) This guideline does not apply to places of employment which are covered by OSHA standards found in 29 CFR Part 1926.

Introduction. The Occupational Safety and Health Administration (OSHA) has concluded that effective management of worker safety and health protection is a decisive factor in reducing the extent and the severity of work-related injuries and illnesses. Effective management addresses all work-related hazards, including those potential hazards which could result from a change in worksite conditions or practices. It addresses hazards whether or not they are regulated by government standards.

OSHA has reached this conclusion in the course of its evaluation of worksites in its enforcement program, its State-operated consultation program, and its Voluntary Protection Programs. These evaluations have revealed a basic relationship between effective management of worker safety and health protection and a low incidence and severity of employee injuries. Such management also correlates with the elimination or adequate control of employee exposure to toxic substances and other unhealthful conditions.

OSHA's experience in the Voluntary Protection Programs has also indicated that effective management of safety and health protection improves employee moral and productivity, as well as significantly reducing workers' compensation costs and other less obvious costs of work-related injuries and illnesses.

Through an analysis of public comment received in response to its request and through an earlier review of literature. OSHA has found that the conclusions it has reached from its own experience are supported by a substantial body of expert and practitioner opinion.

Based on this cumulative evidence that systematic management policies, procedures and practices are fundamental to the reduction of work-related injuries and illnesses and their attendant economic costs. OSHA offers the following guidelines for effective management of worker safety and health protection. OSHA urges all employers to establish and to maintain programs which meet these guidelines in a manner which addresses the specific operations and conditions of their worksites.

The Guidelines

(a) General. (1) Employers are advised and encouraged to institute and maintain in their establishments a program which provides systematic policies, procedures, and practices that are adequate to recognize and protect their employees from occupational safety and health hazards.

(2) An effective program includes provisions for the systematic identification, evaluation, and prevention or control of general workplace hazards, specific job hazards, and potential hazards which may arise from foreseeable conditions.

(3) Although compliance with the law, including specific OSHA standards, is an important objective, and effective program looks beyond specific requirements of law to address all hazards. It will seek to prevent injuries and illnesses, whether or not compliance is at issue.

(4) The extent to which the program is described in writing is less important then how effective it is in practice. As the size of a worksite or the complexity of a hazardous operation increases, however, the need for written guidance increases to ensure clear communications of policies and priorities and consistent and fair application of rules.

(b) Major Elements. An effective occupational safety and health program will include the following four elements. To implement these elements, it will include the actions described in paragraph (c).

(1) Management commitment and employee involvement are complementary. Management commitment provides the motivating force and the resources for organizing and controlling activities within an organization. In an effective program, management regards workers safety and health as a fundamental value of the organization and applies its commitment to safety and health protection with as much vigor as to other organizational purposes. Employee involvement provides the means through which workers develop and/or express their own commitment to safety and health protection, for themselves and for their fellow workers.

(2) Worksite analysis involves a variety of worksite examinations, to identify not only existing hazards but also conditions and operations in which changes might occur to create hazards. Unawareness of a hazard which stems from failure to examine the worksite is a sure sign that safety and health policies and/or practices are ineffective. Effective management actively analyzes the work and worksite, to anticipate and prevent harmful occurrences.

(3) Hazard prevention and controls are triggered by a determination that a hazard or potential hazard exists. Where feasible, hazards are prevented by effective design of the jobsite or job. Where it is not feasible to eliminate them, they are controlled to prevent unsafe and unhealthful exposure. Elimination or controls is accomplished in a timely manner, once a hazard or potential hazard is recognized.

(4) Safety and health training addresses the safety and health responsibilities of all personnel concerned with the site, whether salaried or hourly. If is often most effective when incorporated into other training about performance requirements and job practices. Its complexity depends on the size and complexity of the worksite, and the nature of the hazards and potential hazards at the site.

(c) Recommended Actions

(1) Management Commitment and Employee Involvement. (i) State clearly a worksite policy on safe and healthful work and working conditions, so that all personnel with responsibility at the site and personnel at other locations with responsibility for the site understand the priority of safety and health protection in relation to other organizational values.

(ii) Establish and communicate a clear goal for the safety and health program and objectives for meeting that goal, so that all members of the organization understand the results desired and the measures planned for achieving them.

(iii) Provide visible top management involvement in implementing the program, so that all will understand that management's commitments is serious.

(iv) Provides for the encourage employee involvement in the structure and operation of the program and in decisions that affect their safety and health, so that they will commit their insight and energy to achieving the safety and health program's goal and objectives.

(v) Assign and communicate responsibility for all aspects of the program so that manages, supervisors, and employees in all parts of the organization know what performance is expected of them.

(vi) Provide adequate authority and resources to responsible parties, so that assigned responsibilities can be met.

(vii) Hold managers, supervisors, and employees accountable for meeting their responsibilities, so that essential tasks will be performed.

(viii) Review program operations at least annually to evaluate their success in meeting the goal and objectives, so that deficiencies can be identified and the program and/or the objectives can be revised when they do not meet the goal of effective safety and health protection.

(2) Worksite Analysis. (i) So that all hazards are identified:

(A) Conduct comprehensive baseline worksite surveys for safety and health and periodic comprehensive update surveys:

(B) Analyze planned and new facilities, processes, materials, and equipment; and

(C) Perform routine job hazard analyses.

(ii) Provide for regular site safety and health inspection, so that new or previously missed hazards and failures in hazard controls are identified.

(iii) So that employee insight and experience in safety and health protection may be utilized and employee concerns may be addressed, provide a reliable system for employees, without fear of reprisal, to notify management personnel about conditions that appear hazardous and to receive timely and appropriate responses; and encourage employees to use the system.
(iv) Provide for investigation of accidents and "near miss" incidents, so that their causes and means for their prevention are identified.

(v) Analyze injury and illness trends over time, so that patterns with common causes can be identified and prevented.

(3) Hazard Prevention and Control. (i) So that all current and potential hazards, however detected, are corrected or controlled in a timely manner, established procedures for that purpose, using the following measures:

(A) Engineering techniques where feasible and appropriate:

(B) Procedures for safe work which are understood and followed by all affected parties, as a result of training, positive reinforcement, correction of unsafe performance, and, if necessary, enforcement through a clearly communicated disciplinary system:

(C) Provision of personal protective equipment; and

(D) Administrative controls, such as reducing the duration of exposure.

(ii) Provide for facility and equipment maintenance, so that hazardous breakdown is prevented.

(iii) Plan and prepare for emergencies, and conduct training and drills as needed, so that the response of all parties to emergencies will be "second nature."

(iv) Establish a medical program which includes availability of first aid on site and of physician and emergency medical care nearby, so that harm will be minimized if any injury or illness does occur.

(4) Safety and Health Training. (i) Ensure that all employees understand the hazards to which they may be exposed and how to prevent harm to themselves and others from exposure to these hazards, so that employees accept and follow established safety and health protections.

(ii) So that supervisors will carry out their safety and health responsibilities effectively, ensure that they understand those responsibilities and the reasons for them, including:

(A) Analyzing the work under their supervision to identify unrecognized potential hazards:

(B) Maintaining physical protections in their work areas; and

(C) Reinforcing employee training on the nature of potential hazards in their work and on needed protective measures, through continual performance feedback and, if necessary, through enforcement of safe work practices.

(iii) Ensure that managers understand their safety and health responsibilities, as described under (c)(1). "Management Commitment and Employee Involvement," so that the managers will effectively carry out those responsibilities.

SAFETY AND HEALTH MANAGEMENT SYSTEM ELEMENTS WORKSHEET

(for training purposes)

Good Faith Reduction* = ___________%

*Optional good faith reduction worksheet, page 9

ELEMENT	WEAKNESSES	STRENGTHS
(c)(1) – Management Commitment & Employee Involvement		
(i) State clearly a worksite policy on safe and healthful work and working conditions, so that all personnel with responsibility at the site and personnel at other locations with responsibility for the site understand the priority of safety and health protection in relation to other organizational values.		
(ii) Establish and communicate a clear goal for the safety and health program and objectives for meeting that goal so that all members of the organization understand the results desired and the measures planned for achieving them.		
(iii) Provide visible top management involvement in implementing the program, so that all will understand that management's commitment is serious.		
(iv) Provide for and encourage employee involvement in the structure and operation of the program and in decisions that affect their safety and health, so that they will commit their insight and energy to achieving the safety and health program's goal and objectives.		

ELEMENT	WEAKNESSES	STRENGTHS
(c)(1) – Management Commitment & Employee Involvement *(cont'd)*		
(v) Assign and communicate responsibility for all aspects of the program, so that managers, supervisors, and employees in all parts of the organization know what performance is expected of them.		
(vi) Provide adequate authority and resources to responsible parties, so that assigned responsibilities can be met.		
(vii) Hold managers, supervisors, and employees accountable for meeting their responsibilities, so that essential tasks will be performed.		
(viii) Review program operations at least annually to evaluate their success in meeting the goal and objectives, so that deficiencies can be identified and the program and/or the objectives can be revised when they do not meet the goal of effective safety and health protection.		

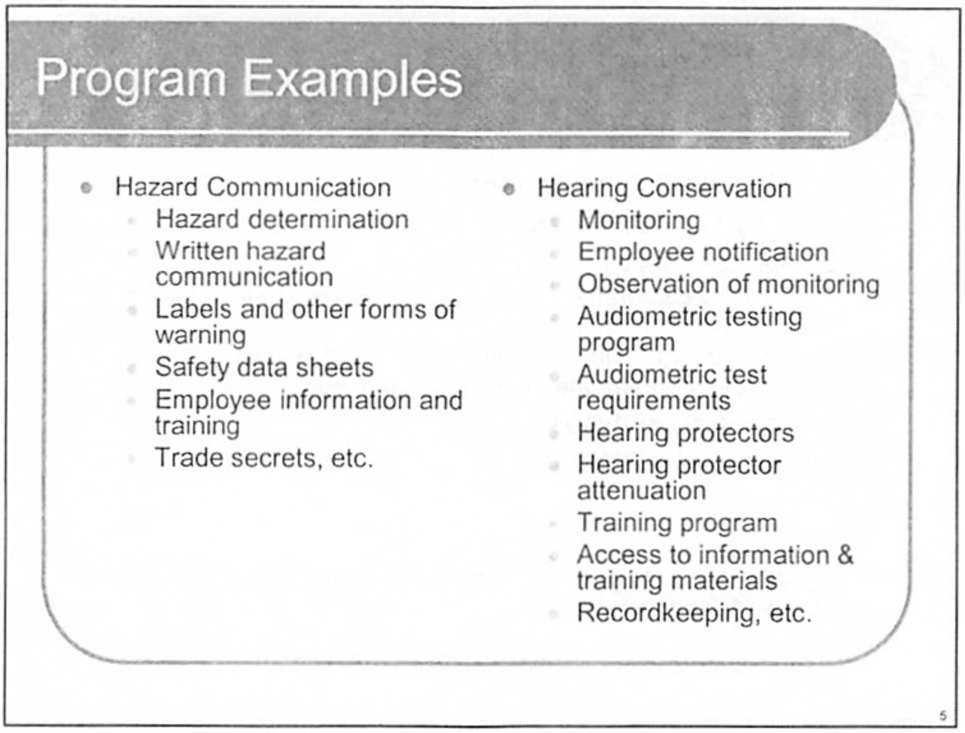
ELEMENT	WEAKNESSES	STRENGTHS
(c)(2) – Worksite Analysis		
(i) So that all hazards are identified: (A) Conduct comprehensive baseline worksite surveys for safety and health and periodic comprehensive update surveys;		
(B) Analyze planned and new facilities, processes, materials and equipment; and		
(C) Perform routine job hazard analyses.		
(ii) Provide for regular site safety and health inspections, so that new or previously missed hazards and failures in hazard controls are identified.		

ELEMENT	WEAKNESSES	STRENGTHS
(c)(2) – Worksite Analysis *(cont'd)*		
(iii) So that employee insight and experience in safety and health protection may be utilized and employee concerns may be addressed, provide a reliable system for employees, without fear of reprisal, to notify management personnel about conditions that appear hazardous and to receive timely and appropriate responses.		
(iv) Provide for investigation of accidents and "near miss" incidents, so that their causes and means for their prevention are identified.		
(v) Analyze injury and illness trends over time, so that patterns with common causes can be identified and prevented.		

ELEMENT	WEAKNESSES	STRENGTHS
(c)(3) – Hazard Prevention and Control		
(i) So that all current and potential hazards, however detected, are corrected or controlled in a timely manner, establish procedures for that purpose, using the following measures: (A) Engineering techniques where feasible and appropriate;		
(B) Procedures for safe work which are understood and followed by all affected parties, as a result of training, positive reinforcement, correction of unsafe performance, and, if necessary, enforcement through a clearly communicated disciplinary system;		
(C) Provision of personal protective equipment; and		
(D) Administrative controls, such as reducing the duration of exposure.		

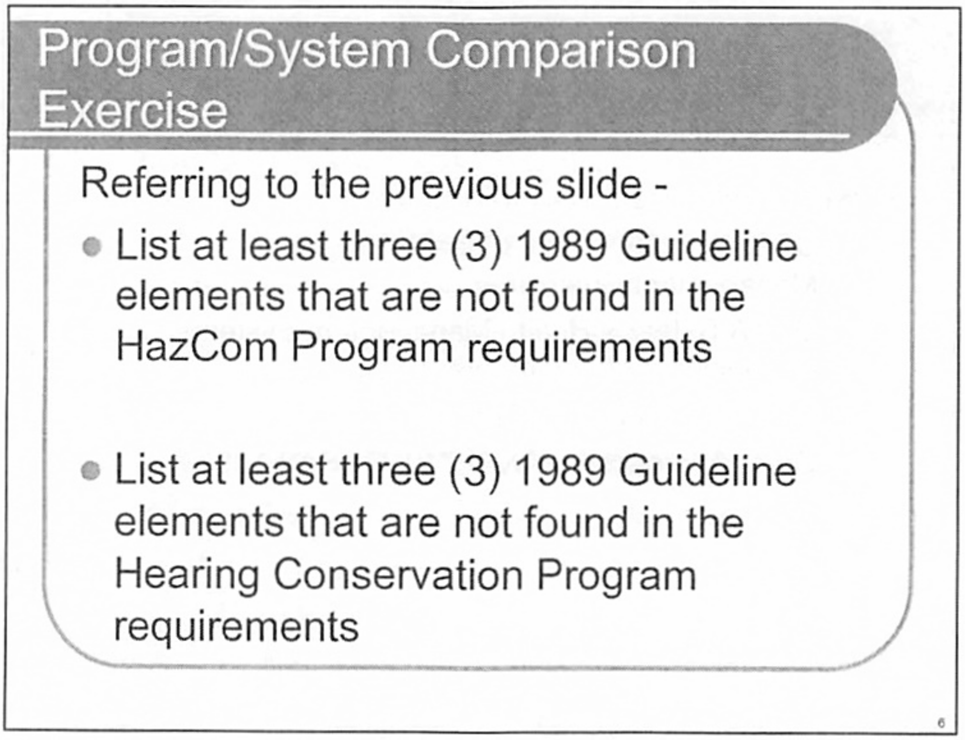
ELEMENT	WEAKNESSES	STRENGTHS
(c)(3) – Hazard Prevention and Control *(cont'd)*		
(ii) Provide for facility and equipment maintenance, so that hazardous breakdown is prevented;		
(iii) Plan and prepare for emergencies, and conduct training and drills as needed, so that the response of all parties to emergencies will be "second nature";		
(iv) Establish a medical program which includes availability of first aid on site and of physician and emergency medical care nearby, so that harm will be minimized if an injury or illness does occur.		

ELEMENT	WEAKNESSES	STRENGTHS
(c)(4) – Safety and Health Training		
(i) Ensure that all employees understand the hazards to which they may be exposed and how to prevent harm to themselves and others from exposure to these hazards, so that employees accept and follow established s&h protections.		
(ii) So that supervisors will carry out their safety and health responsibilities effectively, ensure that they understand those responsibilities and the reasons for them including: (A) Analyzing the work under their supervision to identify unrecognized potential hazards.		
(B) Maintaining physical protections in their work areas.		
(C) Reinforcing employee training on the nature of potential hazards in their work and on needed protective measures through continual performance feedback and if necessary through enforcement of safe work practices.		
(iii) Ensure that managers understand their safety and health responsibilities, as described under (c)(1), "Management Commitment and Employee Involvement," so that the managers will effectively carry out those responsibilities.		



Program Examples

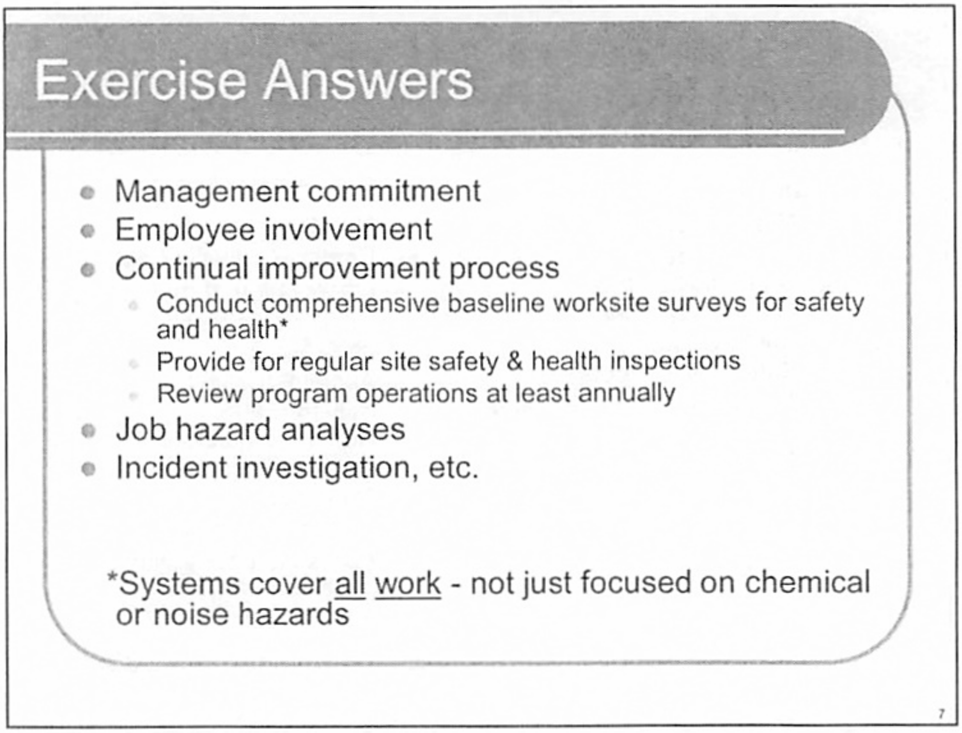
- Hazard Communication
  - Hazard determination
  - Written hazard communication
  - Labels and other forms of warning
  - Safety data sheets
  - Employee information and training
  - Trade secrets, etc.
- Hearing Conservation
  - Monitoring
  - Employee notification
  - Observation of monitoring
  - Audiometric testing program
  - Audiometric test requirements
  - Hearing protectors
  - Hearing protector attenuation
  - Training program
  - Access to information & training materials
  - Recordkeeping, etc.



Program/System Comparison Exercise

Referring to the previous slide -

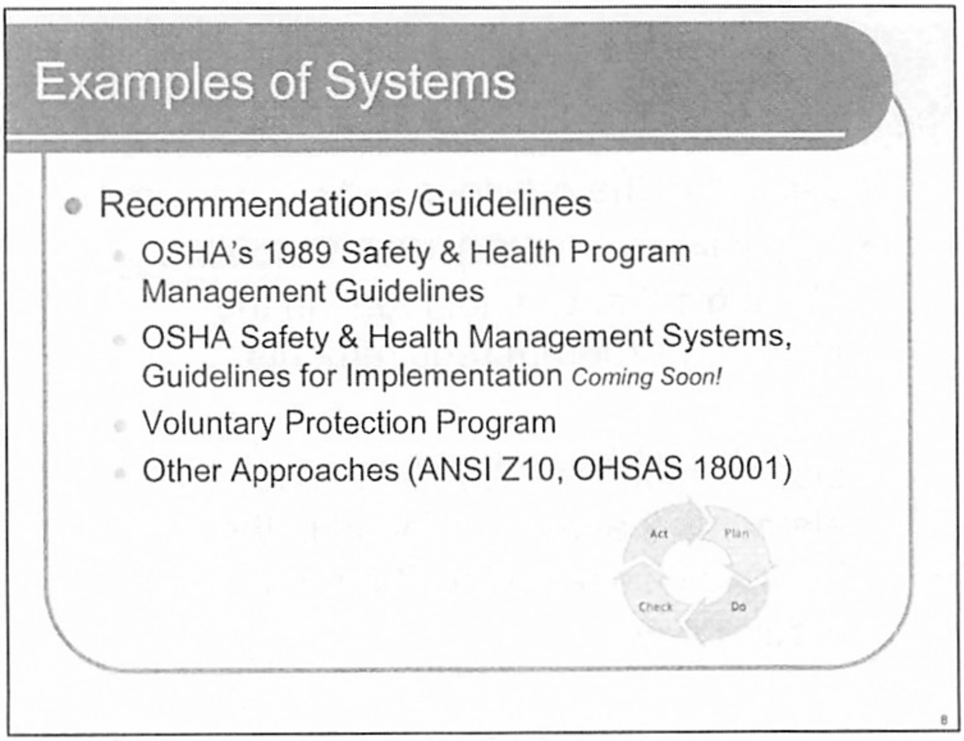
- List at least three (3) 1989 Guideline elements that are not found in the HazCom Program requirements
- List at least three (3) 1989 Guideline elements that are not found in the Hearing Conservation Program requirements



Exercise Answers

- Management commitment
- Employee involvement
- Continual improvement process
  - Conduct comprehensive baseline worksite surveys for safety and health*
  - Provide for regular site safety & health inspections
  - Review program operations at least annually
- Job hazard analyses
- Incident investigation, etc.

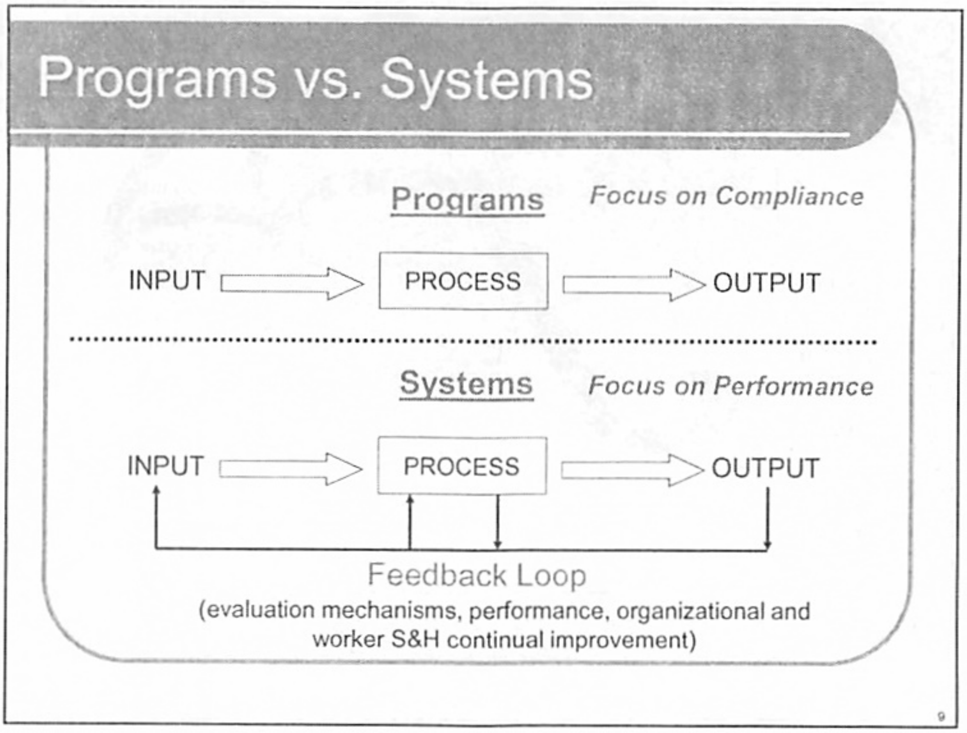
*Systems cover all work - not just focused on chemical or noise hazards



Examples of Systems

- Recommendations/Guidelines
  - OSHA's 1989 Safety & Health Program Management Guidelines
  - OSHA Safety & Health Management Systems, Guidelines for Implementation *Coming Soon!*
  - Voluntary Protection Program
  - Other Approaches (ANSI Z10, OHSAS 18001)

Act
Plan
Check
Do



Programs vs. Systems

Programs *Focus on Compliance*

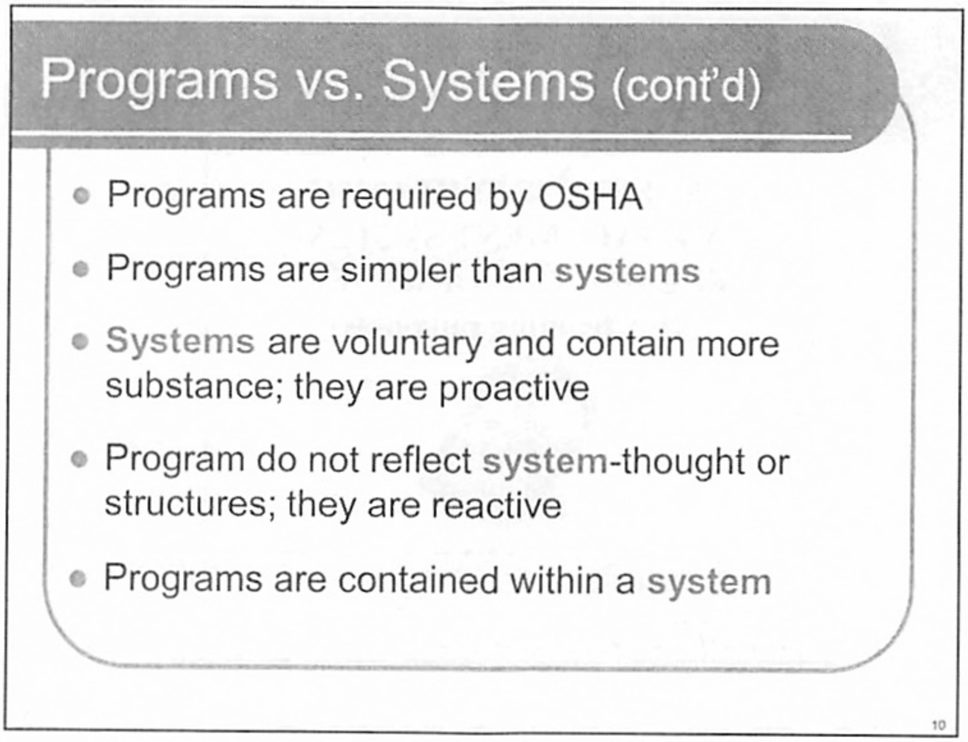
INPUT → PROCESS → OUTPUT

Systems *Focus on Performance*

INPUT → PROCESS → OUTPUT

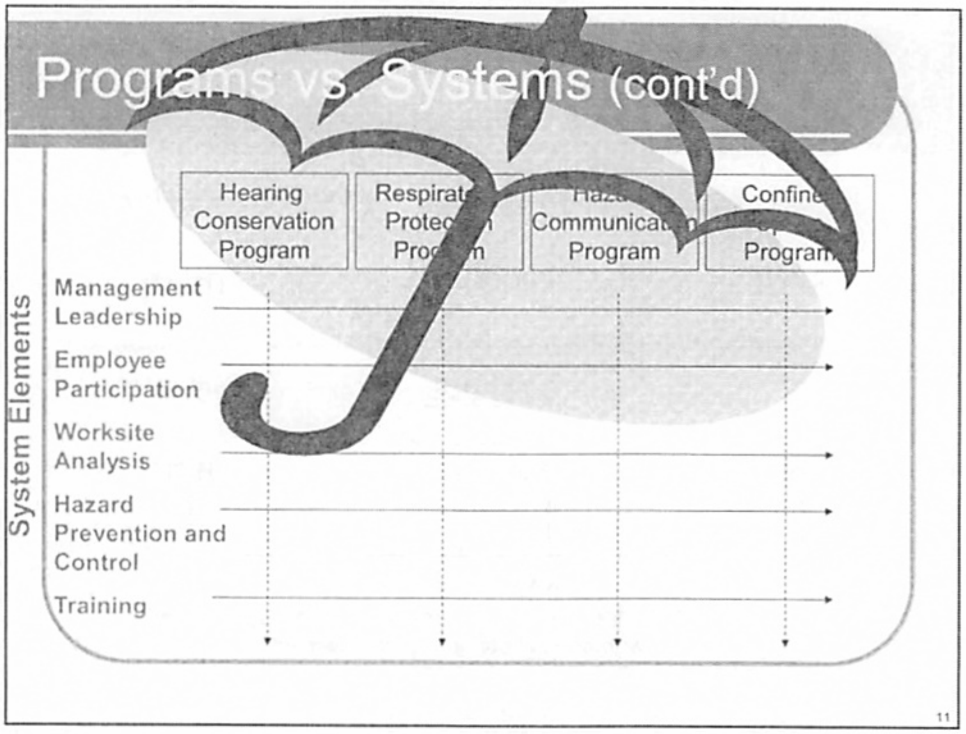
Feedback Loop

(evaluation mechanisms, performance, organizational and worker S&H continual improvement)



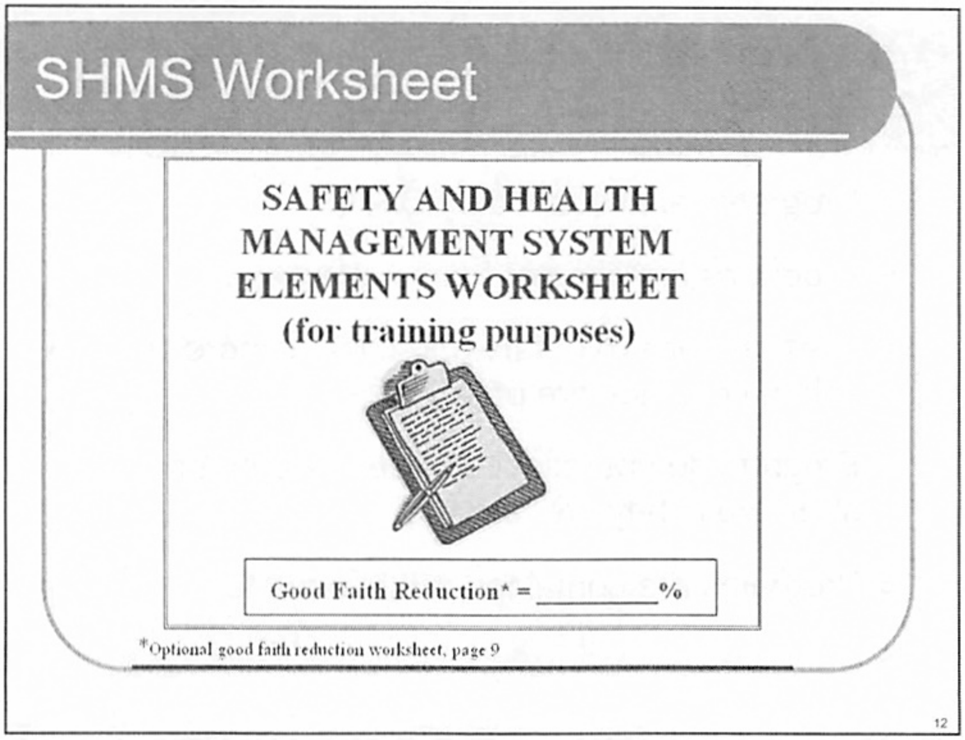
Programs vs. Systems (cont'd)

- Programs are required by OSHA
- Programs are simpler than **systems**
- **Systems** are voluntary and contain more substance; they are proactive
- Program do not reflect **system**-thought or structures; they are reactive
- Programs are contained within a **system**



Programs vs. Systems (cont'd)

Hearing Conservation Program
Respirat Protec n Pro m
Haz Communicat n Program
Confin Program
System Elements
Management Leadership
Employee Participation
Worksite Analysis
Hazard Prevention and Control
Training

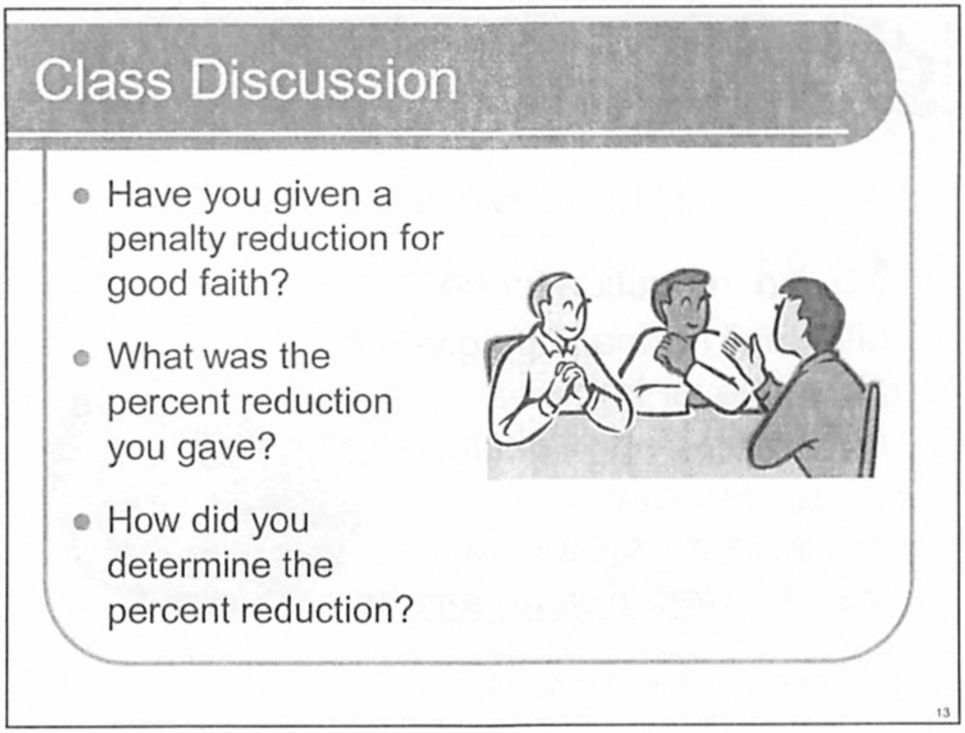


SHMS Worksheet

SAFETY AND HEALTH MANAGEMENT SYSTEM ELEMENTS WORKSHEET (for training purposes)

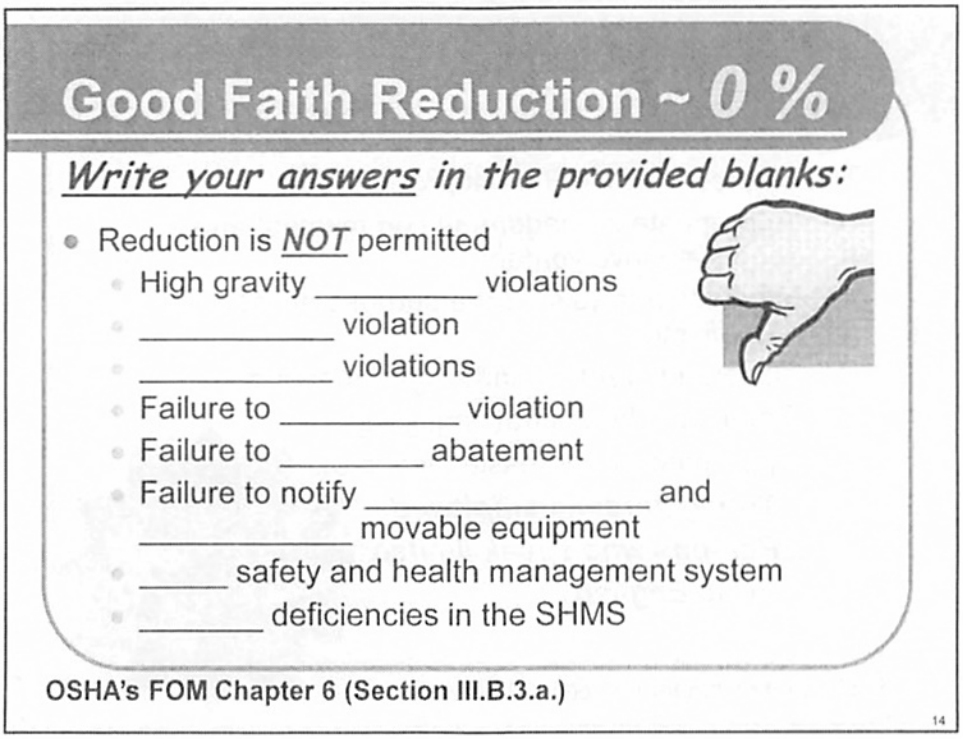
Good Faith Reduction* = ________%

*Optional good faith reduction worksheet, page 9



Class Discussion

- Have you given a penalty reduction for good faith?
- What was the percent reduction you gave?
- How did you determine the percent reduction?

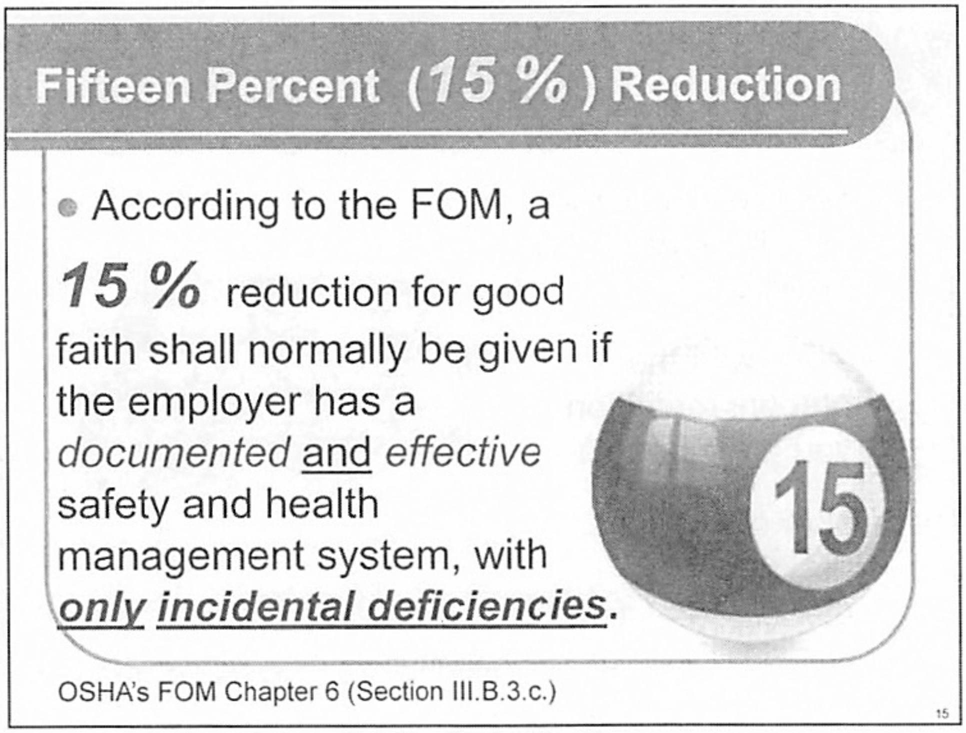


Good Faith Reduction ~ *0 %*

***Write your answers** in the provided blanks:*

- Reduction is ***NOT*** permitted
  - High gravity __________ violations
  - ____________ violation
  - ____________ violations
  - Failure to ___________ violation
  - Failure to _________ abatement
  - Failure to notify _________________ and _____________ movable equipment
  - ______ safety and health management system
  - ________ deficiencies in the SHMS

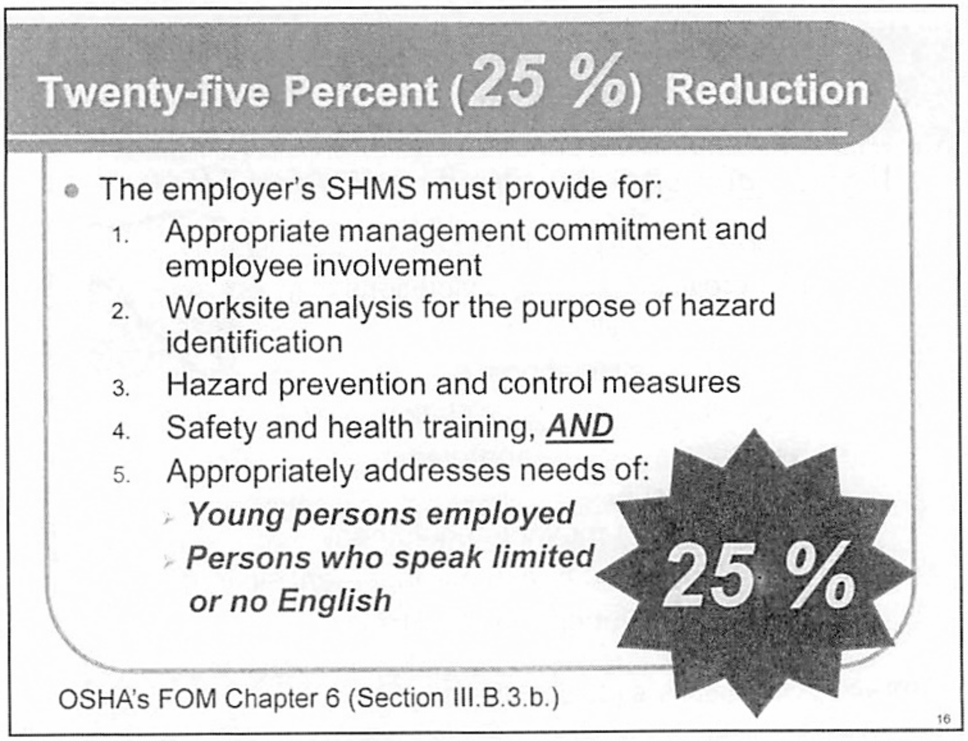
OSHA's FOM Chapter 6 (Section III.B.3.a.)



Fifteen Percent (*15 %*) Reduction

- According to the FOM, a **15 %** reduction for good faith shall normally be given if the employer has a *documented* and *effective* safety and health management system, with ***only incidental deficiencies***.

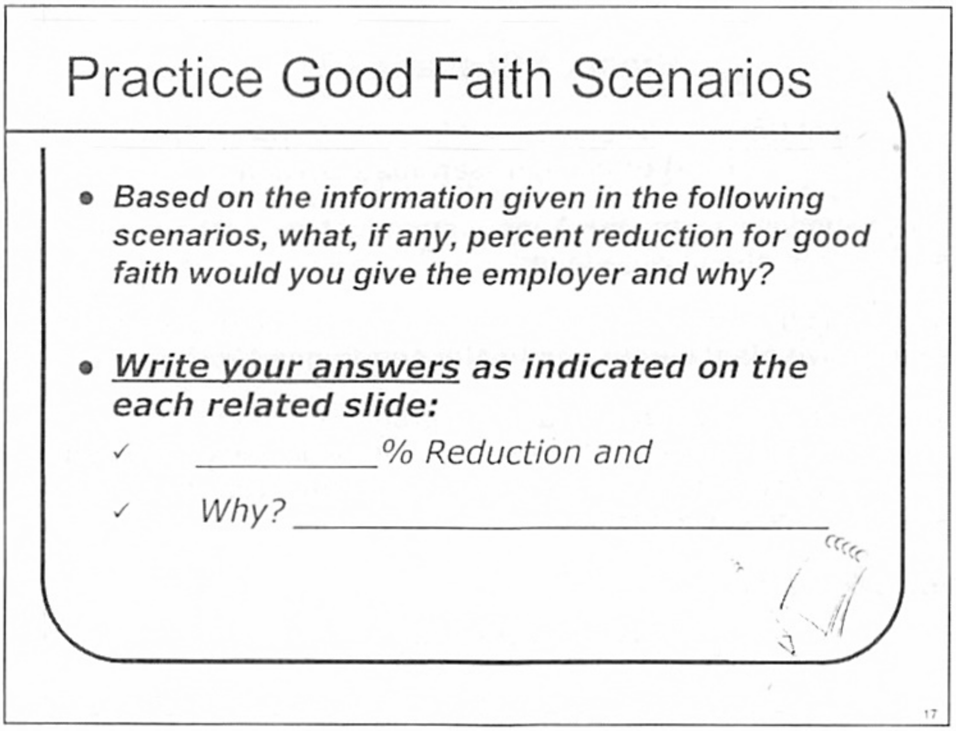
OSHA's FOM Chapter 6 (Section III.B.3.c.)



Twenty-five Percent (*25 %*) Reduction

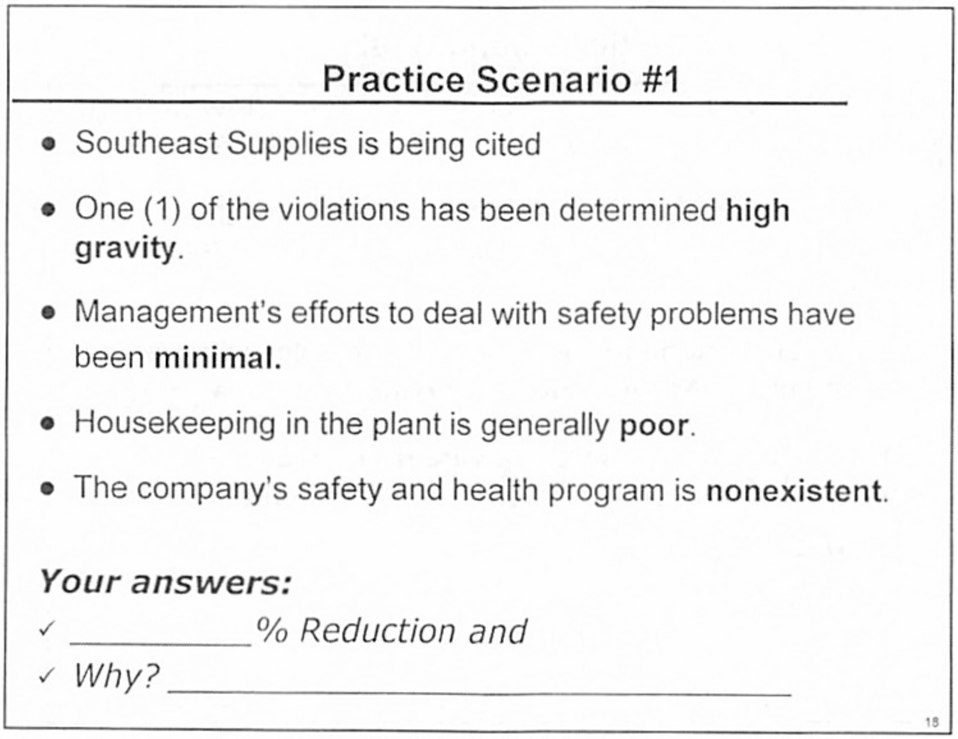
- The employer's SHMS must provide for:
  1. Appropriate management commitment and employee involvement
  2. Worksite analysis for the purpose of hazard identification
  3. Hazard prevention and control measures
  4. Safety and health training, ***AND***
  5. Appropriately addresses needs of:
     - ***Young persons employed***
     - ***Persons who speak limited or no English***

OSHA's FOM Chapter 6 (Section III.B.3.b.)



Practice Good Faith Scenarios

- ***Based on the information given in the following scenarios, what, if any, percent reduction for good faith would you give the employer and why?***
- ***Write your answers as indicated on the each related slide:***
  - ✓ ___________*% Reduction and*
  - ✓ *Why?* ________________________________



Practice Scenario #1

- Southeast Supplies is being cited
- One (1) of the violations has been determined **high gravity**.
- Management's efforts to deal with safety problems have been **minimal.**
- Housekeeping in the plant is generally **poor**.
- The company's safety and health program is **nonexistent**.

Your answers:

✓ ___________*% Reduction and*

✓ *Why?* ________________________________

Practice Scenario #2

- Gray Paint Company is being cited for one **(1) low gravity serious** and **one (1) other-than-serious violation**.
- The company had an **OSHA inspection last year**, where **13 serious violations** were found.
- Following this inspection, the company made **a genuine effort to improve plant safety and health conditions.**
- They have an **excellent written program** dealing with management commitment, hazard identification and prevention, training, worksite analysis, and employees are involved in the safety and health committee.

Your answers:

✓ ___________*% Reduction and*

✓ *Why?* ______________________________________

Practice Scenario #3

- Colors Unlimited has been cited **one (1) serious (low gravity)** violation for three (3) employees overexposed to acetone.
- The employer has a **written safety and health program** that includes respiratory protection and hazard communication training.
- A **ventilation system** designed to reduce employee exposure to acetone had been taken **out of service for over a year**.
- The three (3) employees were **aware of the hazards** associated with acetone, but were **not wearing the appropriate respirators.**

Your answers:

✓ ___________*% Reduction and*

✓ *Why?* ______________________________________

Practice Scenario #4

- Zee Manufacturing has been cited for **1 medium gravity serious** and **1 other-than-serious violation.**
- The serious violation related to an **unguarded chain and sprocket.**
- **The guard is on order and scheduled to arrive this week**.
- **Working conditions** at the plant are **good**.
- The company has **a written safety and health management system** which **appears effective** with **only minor deficiencies**.

Your answers:

✓ ___________*% Reduction and*

✓ *Why?* ____________________________________

Closing Conference

CSHOs shall:

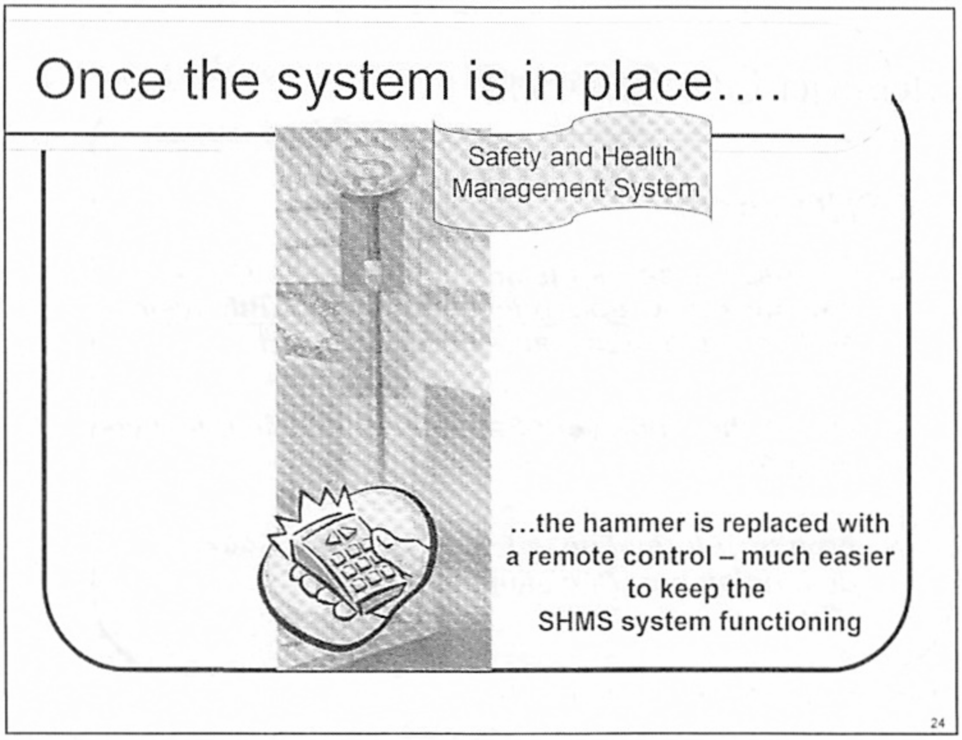
- ***discuss the strengths and weaknesses of the employer's occupational safety and health system and any other applicable programs, and***
- ***advise the employer of the benefits of an effective program(s) and***
- ***provide information, such as, OSHA's website, describing program elements.***

OSHA's FOM Chapter 3 (Section VIII.B.3)

Good Faith Reduction

- In your group, determine good faith reduction for Hi-Tech
- Document how your group arrived at the percent reduction

Once the system is in place….



Safety and Health Management System

…the hammer is replaced with a remote control – much easier to keep the SHMS system functioning

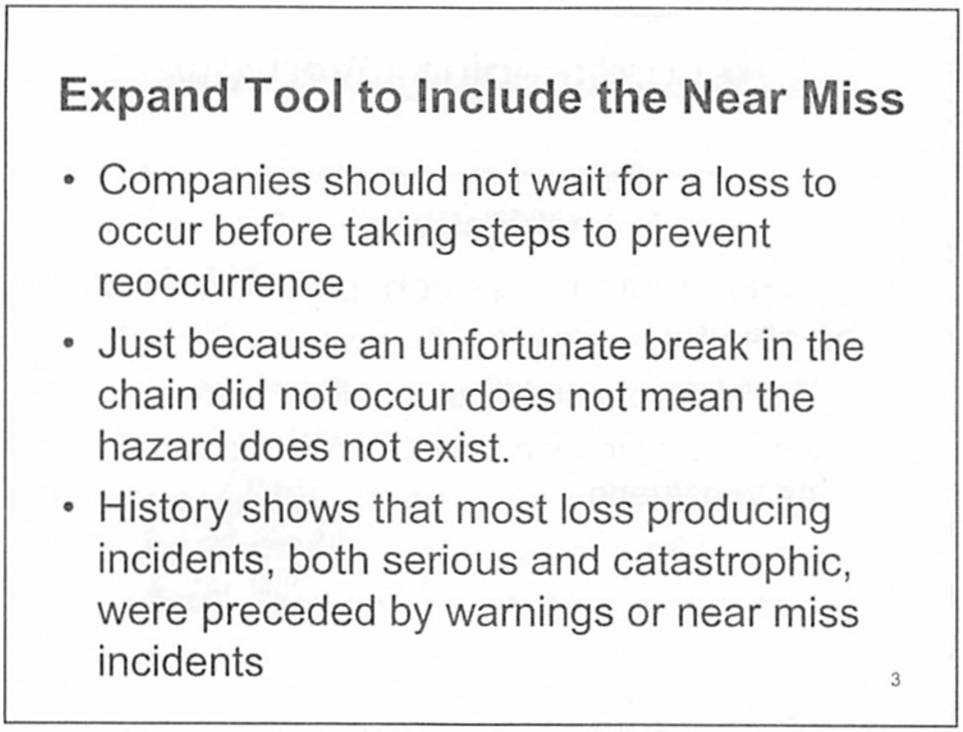
Recordkeeping Overview

Objectives

- At the end of this session, participants will be able to:
  - Explain injury and illness incidence rates
  - Analyze injury and illness records for patterns/trends

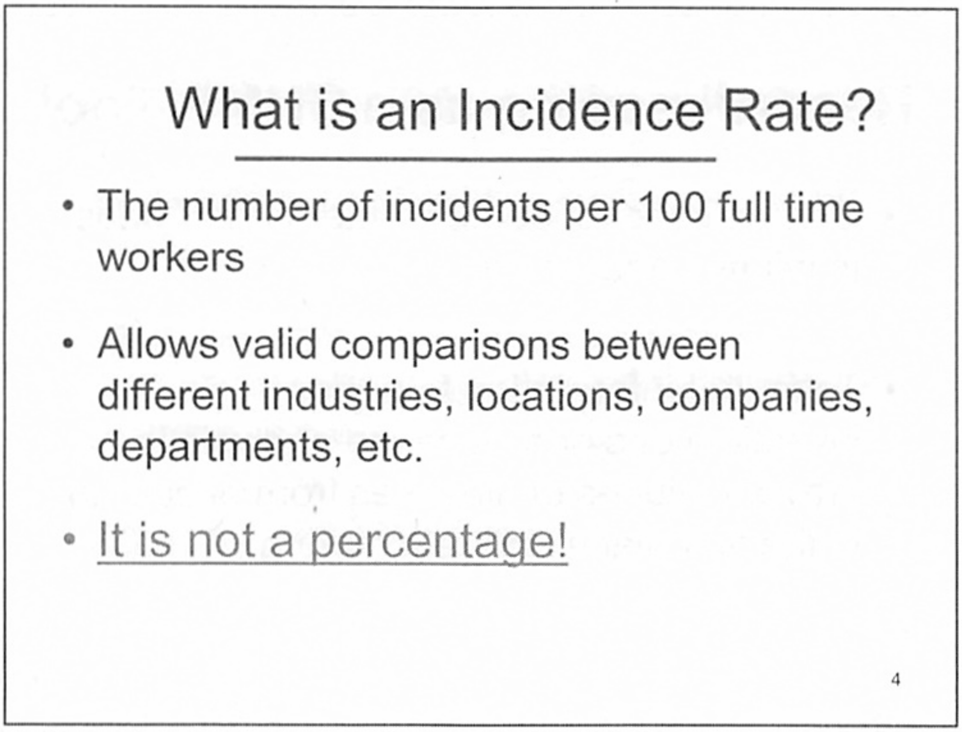
Recordkeeping as a SHMS Tool

- Can be used to identify patters and trends in injuries and illness
- Take that information to perform investigations or root cause analysis to prevent injuries or illnesses from occurring in the first place and reoccurring



Expand Tool to Include the Near Miss

- Companies should not wait for a loss to occur before taking steps to prevent reoccurrence
- Just because an unfortunate break in the chain did not occur does not mean the hazard does not exist.
- History shows that most loss producing incidents, both serious and catastrophic, were preceded by warnings or near miss incidents



What is an Incidence Rate?

- The number of incidents per 100 full time workers
- Allows valid comparisons between different industries, locations, companies, departments, etc.
- It is not a percentage!

Incidence Rates

- Formula for calculation

$$\text{Rate per 100 full time workers} = \frac{N}{\text{Hours worked}} \times 200{,}000$$

Breakdown of Formula

Base for 100
equivalent full-time workers
working 40 hours per week
50 weeks per year

Number of
incidents

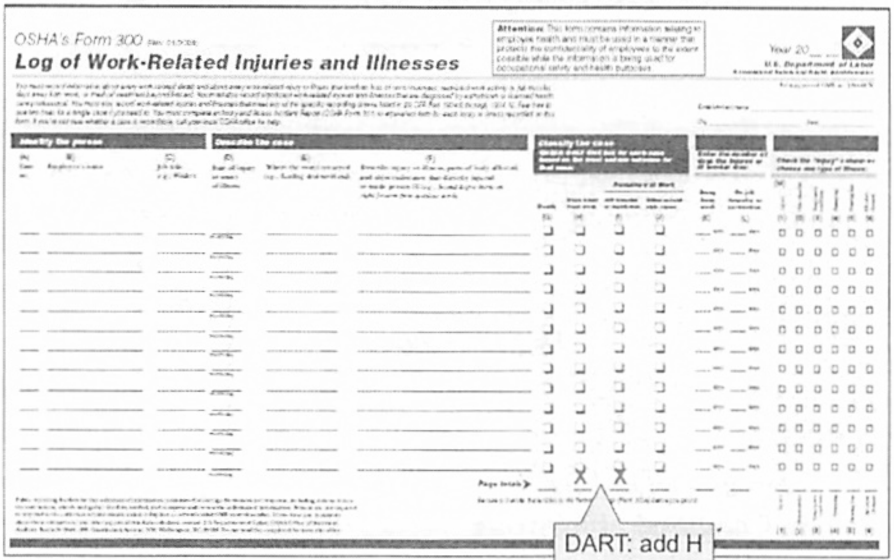
$$\frac{N}{\text{Hours worked}} \times 200{,}000$$

Hours worked by
all covered employees

What is N?

- The number of incidents
  - Total Injury and Illness rate is the number of cases of injury and illness (300 or 300A, columns G, H, I, J)
  - Recordable cases involving days away from work (300 or 300A, Column H)
  - Cases with job transfer or restricted work activity (300 or 300A, Column I)
  - Cases involving days away & days restricted or transferred (DART) (300 or 300A, Columns H & I)

OSHA 300



OSHA's Form 300

Log of Work-Related Injuries and Illnesses

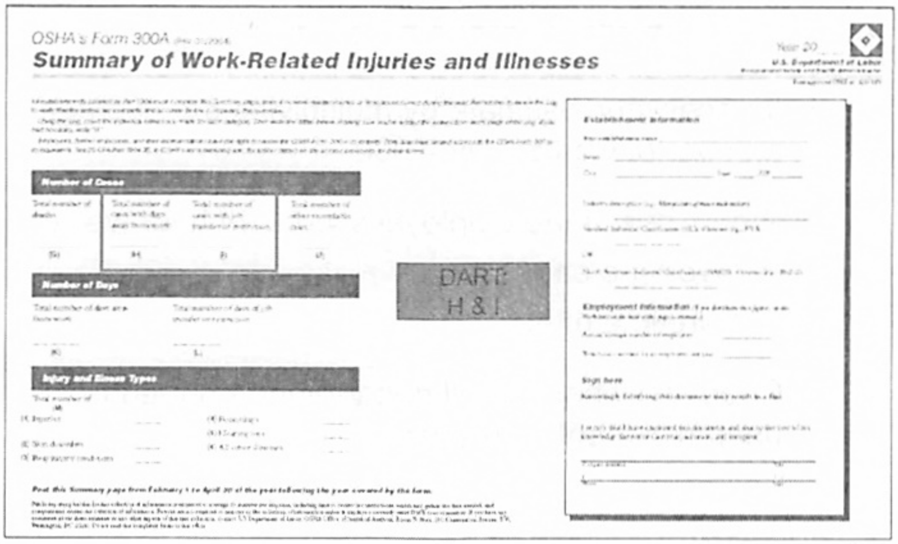
Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.

Year 20__

U.S. Department of Labor

DART: add H & I

OSHA 300A



OSHA's Form 300A

Summary of Work-Related Injuries and Illnesses

Year 20__

U.S. Department of Labor

Number of Cases

Number of Days

Injury and Illness Types

Post this Summary page from February 1 to April 30 of the year following the year covered by the form.

Establishment information

Employment information

Sign here

DART:
H & I

Hours Worked

- Hours worked by all employees covered by the records
  - Hourly
  - Salary
  - Part-time
  - Overtime
  - Temporary workers (controlled by employer)

Hours Worked

- If necessary, estimate by multiplying the average number of workers by 2,000
- Works best if the employees work 40 hour weeks
    - Overtime effect
    - Part time effect
- Check on what payroll department reported to unemployment insurance

DART Rate Example

- The ABC Company had 6 cases with days away or days restricted/transferred during the year. The total hours worked by all employees was 199,200.

$$\frac{6}{199{,}200} \times 200{,}000 = 6.02$$

Therefore, the ABC company experienced a DART rate of 6.02 injuries and illnesses per 100 full-time employees.

- http://data.bls.gov/IIRC/

Effect of Errors on Hours Worked

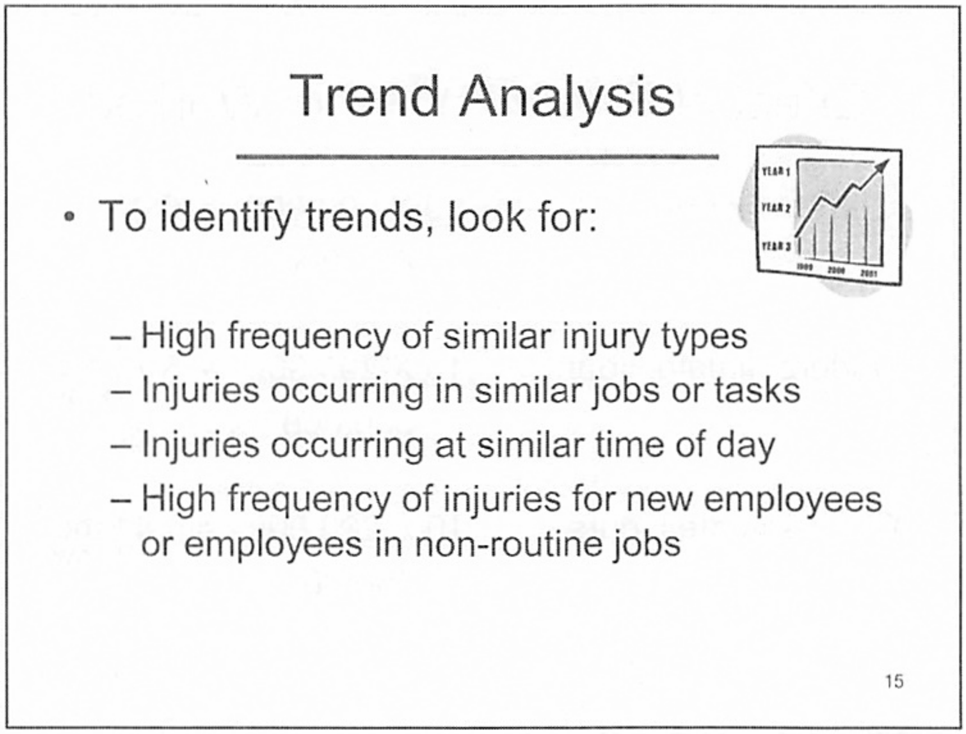
Correct Hours $\frac{10 \times 200{,}000}{400{,}000} = 5.0$

Underestimate Hours $\frac{10 \times 200{,}000}{350{,}000} = 5.7$ TOO HIGH

Overestimate Hours $\frac{10 \times 200{,}000}{450{,}000} = 4.4$ TOO LOW

Other Incidence Rates

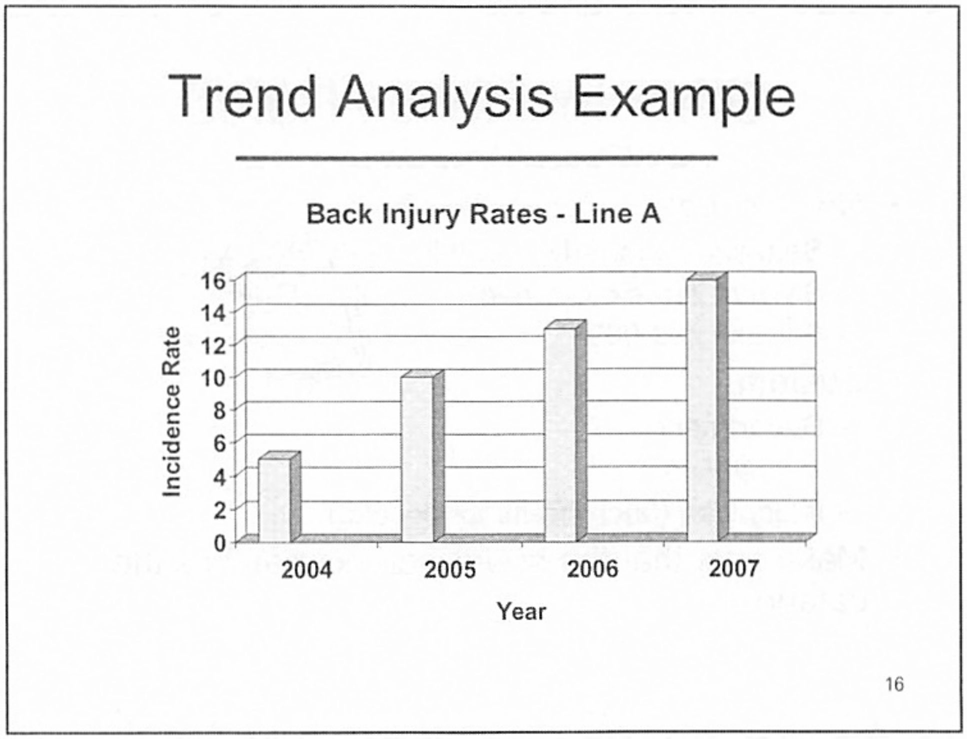
- Non-Annual
  - Seasonal, quarterly, monthly
  - Several years combined
  - Still use 200,000
- Custom
  - Department
  - Occupation
  - Injury type (back strain/sprain, etc.)
- Make sure that the hours worked matches the category



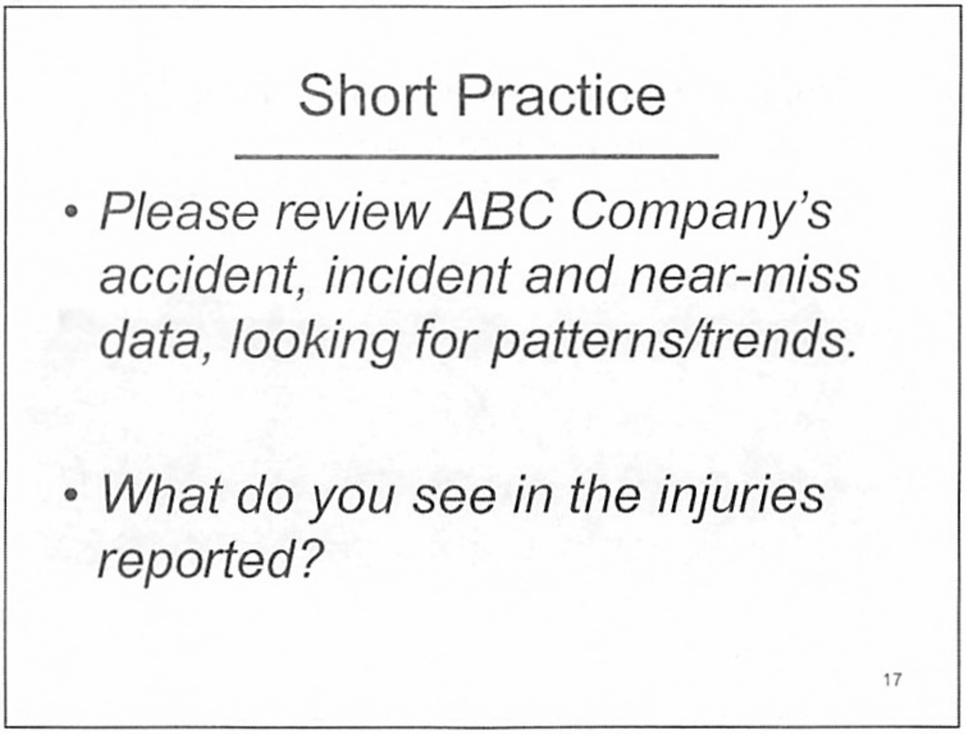
Trend Analysis

- To identify trends, look for:
  - High frequency of similar injury types
  - Injuries occurring in similar jobs or tasks
  - Injuries occurring at similar time of day
  - High frequency of injuries for new employees or employees in non-routine jobs

YEAR 1
YEAR 2
YEAR 3

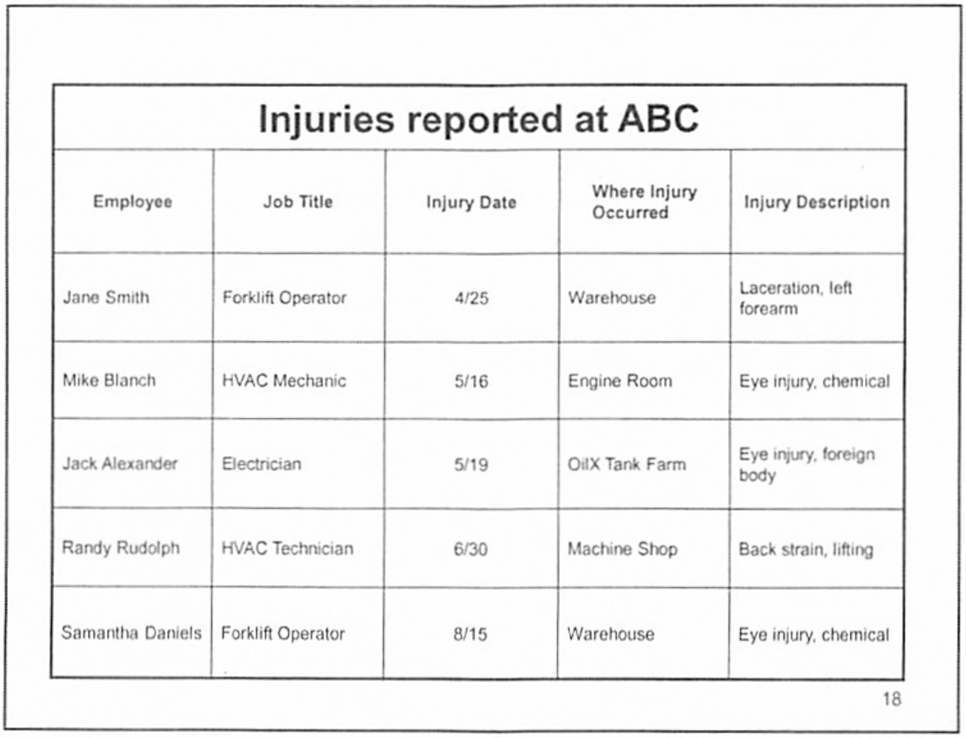


Trend Analysis Example



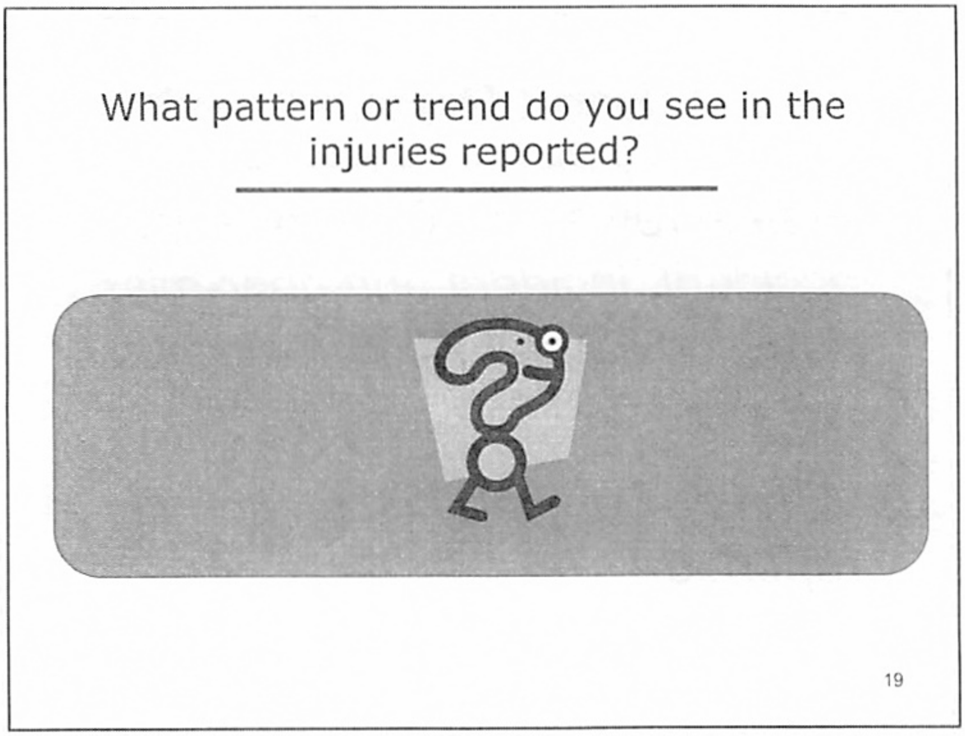
Short Practice

- *Please review ABC Company's accident, incident and near-miss data, looking for patterns/trends.*
- *What do you see in the injuries reported?*



Injuries reported at ABC

Employee	Job Title	Injury Date	Where Injury Occurred	Injury Description
Jane Smith	Forklift Operator	4/25	Warehouse	Laceration, left forearm
Mike Blanch	HVAC Mechanic	5/16	Engine Room	Eye injury, chemical
Jack Alexander	Electrician	5/19	OilX Tank Farm	Eye injury, foreign body
Randy Rudolph	HVAC Technician	6/30	Machine Shop	Back strain, lifting
Samantha Daniels	Forklift Operator	8/15	Warehouse	Eye injury, chemical



What pattern or trend do you see in the injuries reported?

RECORDS ANALYSIS: TRENDS TO RESEARCH

Item	Definition	Comparing ... Yields this information
Nature of Injury/Illness	Identifies the injury/illness in terms of its principal physical characteristics	Nature of Injury/Illness with Part of Body Affected: Allows you to gauge the seriousness of the injuries/illnesses that have occurred and will frequently point to a need for greater use of personal protective equipment
Part of Body Affected	Identifies the part of the injured or ill person's body directly affected	
Sources of Injury/Illness	Identifies the object, substances, exposure or bodily motion that directly produced or inflicted the injury/illness	Accident Type and Source of Injury/Illness: Indicates how the employee came into contact with each injury/illness-producing object. Indicates the kinds of events that must be prevented and identifies the objects that need to be controlled.
Accident Type	Identifies the event which directly resulted in the injury/illness: ♦struck against ♦struck by ♦fall from elevation ♦falls on same level ♦caught in, under or between ♦rubbed or abraded ♦bodily reaction ♦overexertion ♦contact w/ electrical current ♦contact w/ temperature extremes ♦motor-vehicle	Nature and Source of Injury/Illness and Accident Type. Identifies the objects or substances that have injury/illness producing potentials; furnishes specific clues as to the particular kinds of PPE needed and in some instances, identifies specific materials that possibly should be eliminated from the operating process or for which safe handling procedures need to be developed.

Hi-Tech, Inc. Recordkeeping Worksheet
STUDENT VERSION

Review the introductory material on Hi-Tech, including the Safety Committee Minutes and the OSHA Recordkeeping forms, and answer the following.

DART = (N/EH) x (200,000) where:

N is the number of cases involving days away and/or restricted work activity and job transfers.
EH is the total number of hours worked by all employees during the calendar year; and
200,000 is the base number of hours worked for 100 full-time equivalent employees.

FOM: Chapter 3, Section VI (A) (4)

Calculate the DART Rate for each of the three years:

Year 1:

( ) X 200,000 =

Year 2:

( ) X 200,000 =

Year 3:

( ) X 200,000 =

Based on the records review:

- **List some questions you would like to ask management.**
- **List some questions you would like to ask employees.**
- **What trends do you observe in the injuries/illnesses reported?**

Management Questions:

Employee Questions:

Recordkeeping Trends:

U.S. Department of Labor

Occupational Safety and Health Administration
Washington, D.C. 20210

Reply to the attention of:

MAR 12 2012

MEMORANDUM FOR: REGIONAL ADMINISTRATORS, WHISTLEBLOWER PROGRAM MANAGERS

FROM: RICHARD E. FAIRFAX
Deputy Assistant Secretary

SUBJECT: Employer Safety Incentive and Disincentive Policies and Practices

Section 11(c) of the OSH Act prohibits an employer from discriminating against an employee because the employee reports an injury or illness. 29 CFR 1904.36. This memorandum is intended to provide guidance to both field compliance officers and whistleblower investigative staff on several employer practices that can discourage employee reports of injuries and violate section 11(c), or other whistleblower statutes.

Reporting a work-related injury or illness is a core employee right, and retaliating against a worker for reporting an injury or illness is illegal discrimination under section 11(c). Other whistleblower statutes enforced by OSHA also may protect employees who report workplace injuries. In particular, the Federal Railroad Safety Act (FRSA) prohibits railroad carriers, their contractors and subcontractors from discriminating against employees for reporting injuries. 49 U.S.C. 20109(a)(4).

If employees do not feel free to report injuries or illnesses, the employer's entire workforce is put at risk. Employers do not learn of and correct dangerous conditions that have resulted in injuries, and injured employees may not receive the proper medical attention, or the workers' compensation benefits to which they are entitled. Ensuring that employees can report injuries or illnesses without fear of retaliation is therefore crucial to protecting worker safety and health.

There are several types of workplace policies and practices that could discourage reporting and could constitute unlawful discrimination and a violation of section 11(c) and other whistleblower protection statutes. Some of these policies and practices may also violate OSHA's recordkeeping regulations, particularly the requirement to ensure that employees have a way to report work-related injuries and illnesses. 29 C.F.R. 1904.35(b)(1). I list the most common potentially discriminatory policies below. OSHA has also observed that the potential for unlawful discrimination under all of these policies may increase when management or supervisory bonuses are linked to lower reported injury rates. While OSHA appreciates employers using safety as a key management metric, we cannot condone a program that encourages discrimination against workers who report injuries.

1. OSHA has received reports of employers who have a policy of taking disciplinary action against employees who are injured on the job, regardless of the circumstances surrounding the injury. Reporting an injury is always a protected activity. OSHA views discipline imposed under such a policy against an employee who reports an injury as a direct violation of section 11(c) or FRSA. In other words, an employer's policy to discipline all employees who are injured, regardless of fault, is not a legitimate nondiscriminatory reason that an employer may advance to justify adverse action against an employee who reports an injury. In addition, such a policy is inconsistent with the employer's obligation to establish a way for employees to report injuries under 29 CFR 1904.35(b), and where it is encountered, a referral for a recordkeeping investigation should be made. Where OSHA encounters such conduct by a railroad carrier, or a contractor or subcontractor of a railroad carrier, a referral to the Federal Railroad Administration (FRA), which may conduct a recordkeeping investigation, may also be appropriate.
2. In another situation, an employee who reports an injury or illness is disciplined, and the stated reason is that the employee has violated an employer rule about the time or manner for reporting injuries and illnesses. Such cases deserve careful scrutiny. Because the act of reporting the injury directly results in discipline, there is a clear potential for violating section 11(c) or FRSA. OSHA recognizes that employers have a legitimate interest in establishing procedures for receiving and responding to reports of injuries. To be consistent with the statute, however, such procedures must be reasonable and may not unduly burden the employee's right and ability to report. For example, the rules cannot penalize workers who do not realize immediately that their injuries are serious enough to report, or even that they are injured at all. Nor may enforcement of such rules be used as a pretext for discrimination. In investigating such cases, factors such as the following may be considered: whether the employee's deviation from the procedure was minor or extensive, inadvertent or deliberate, whether the employee had a reasonable basis for acting as he or she did, whether the employer can show a substantial interest in the rule and its enforcement, and whether the discipline imposed appears disproportionate to the asserted interest. Again, where the employer's reporting requirements are unreasonable, unduly burdensome, or enforced with unjustifiably harsh sanctions, they may result in inaccurate injury records, and a referral for a recordkeeping investigation should be made.
3. In a third situation, an employee reports an injury, and the employer imposes discipline on the ground that the injury resulted from the violation of a safety rule by the employee. OSHA encourages employers to maintain and enforce legitimate workplace safety rules in order to eliminate or reduce workplace hazards and prevent injuries from occurring in the first place. In some cases, however, an employer may attempt to use a work rule as a pretext for discrimination against a worker who reports an injury. A careful investigation is needed. Several circumstances are relevant. Does the employer monitor for compliance with the work rule in the absence of an injury? Does the employer consistently impose equivalent discipline against employees who violate the work rule in the absence of an injury? The nature of the rule cited by the employer should also be considered. Vague rules, such as a requirement that employees "maintain situational awareness" or "work carefully" may be manipulated and used as a pretext for unlawful discrimination. Therefore, where such general rules are involved, the investigation must include an especially careful examination of whether and how the employer applies the rule in situations that do not involve an employee injury. Enforcing a rule more stringently against injured employees than noninjured employees may suggest that the rule is a pretext for discrimination against an injured employee in violation of section 11(c) or FRSA.
4. Finally, some employers establish programs that unintentionally or intentionally provide employees an incentive to not report injuries. For example, an employer might enter all employees who have not been injured in the previous year in a drawing to win a prize, or a team of

employees might be awarded a bonus if no one from the team is injured over some period of time. Such programs might be well-intentioned efforts by employers to encourage their workers to use safe practices. However, there are better ways to encourage safe work practices, such as incentives that promote worker participation in safety-related activities, such as identifying hazards or participating in investigations of injuries, incidents or "near misses". OSHA's VPP Guidance materials refer to a number of positive incentives, including providing tee shirts to workers serving on safety and health committees; offering modest rewards for suggesting ways to strengthen safety and health; or throwing a recognition party at the successful completion of company-wide safety and health training. *See Revised Policy Memo #5 - Further Improvements to VPP* (June 29, 2011).

Incentive programs that discourage employees from reporting their injuries are problematic because, under section 11(c), an employer may not "in any manner discriminate" against an employee because the employee exercises a protected right, such as the right to report an injury. FRSA similarly prohibits a railroad carrier, contractor or subcontractor from discriminating against an employee who notifies, or attempts to notify, the railroad carrier or the Secretary of Transportation of a work-related personal injury. If an employee of a firm with a safety incentive program reports an injury, the employee, or the employee's entire work group, will be disqualified from receiving the incentive, which could be considered unlawful discrimination. One important factor to consider is whether the incentive involved is of sufficient magnitude that failure to receive it "might have dissuaded reasonable workers from" reporting injuries. *Burlington Northern & Santa Fe Railway Co. v. White*, 548 U.S. 53, 68 (2006).

In addition, if the incentive is great enough that its loss dissuades reasonable workers from reporting injuries, the program would result in the employer's failure to record injuries that it is required to record under Part 1904. In this case, the employer is violating that rule, and a referral for a recordkeeping investigation should be made. If the employer is a railroad carrier, contractor or subcontractor, a violation of FRA injury-reporting regulations may have occurred and a referral to the FRA may be appropriate. This may be more likely in cases where an entire workgroup is disqualified because of a reported injury to one member, because the injured worker in such a case may feel reluctant to disadvantage the other workgroup members.

Please contact the Office of Whistleblower Protection Programs at (202) 693-2199 if you have further questions.

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OSHA Citation Items are an Indicator of SHMS Deficiencies Workshop

OBJECTIVES:

- Hazards found during an inspection should be reviewed to determine what failure in the safety and health system permitted the hazard to occur.
- The system failure should then be corrected to ensure that similar hazards do not reoccur.

Example: “Ike on Loan”

During your inspection of the shipping/receiving warehouse at ABC Company, you observe an employee, Ike, driving a forklift in an erratic manner. You interview Ike and find that his regular job is a mechanic’s helper. Ike was detailed from the maintenance facility to help out in the warehouse for 30 days.

Upon arrival at his temporary assignment, Ike was asked if he had a state drivers license. He replied, "yes" and was immediately assigned the duty of driving a forklift. He has been in the warehouse for 3 days. In response to your questions, Ike said that:

- No one asked him to perform an inspection of his vehicle prior to operation.
- He mentioned that he saw leaking fluids, but wasn't sure if he should report this.

The supervisor, Fred, said HR placed Ike in the warehouse. Fred was not involved in Ike's selection nor aware of his lack of training.

Track the Hazard to a Deficiency in the SHMS

POSSIBLE VIOLATIONS, DEFICIENCIES & CORRECTIVE ACTION:

VIOLATION	DEFICIENCY	CORRECTION
1. Forklift operator not trained.		

Track the Hazard to a Deficiency in the SHMS

POSSIBLE VIOLATIONS, DEFICIENCIES & CORRECTIVE ACTION:

VIOLATION	DEFICIENCY	CORRECTION
2. No inspections of forklift before operation.		

Workshop

REVIEW OBJECTIVES

- Hazards found during an inspection should be reviewed to determine what failure in the safety and health system permitted the hazard to occur.
- The system failure should then be corrected to ensure that similar hazards do not reoccur.

Workshop

- Working in groups, consider the assigned violation as an indicator of deficiencies in Hi-Tech's Safety & Health Management System (SHMS)
  - (1) Determine the deficiencies in the SHMS that permitted the violation to occur and include the related element
  - (2) Suggest corrective actions to improve the SHMS to ensure the same hazards will not occur in the future
- Use the *Ike on Loan* example as a guide

OSHA Citation Items are an Indicator of SHMS Deficiencies

Working in groups, consider the assigned citation item (possible violation) from the list below as an indicator of deficiencies in the employer's Safety and Health Management System.

- Lack of hand protection/gloves
- Eye protection not provided/enforced
- Lockout/Tagout
- Hazard Communication
- Ergonomics

As a group, (1) determine the deficiencies in the SHMS that permitted the violation to occur, as well as the related SHMS element; and (2) decide the actions the employer should take to improve the company's SHMS to ensure that in the future the same hazards will be avoided. **[Use the *Ike on Loan* Example as a guide.]**

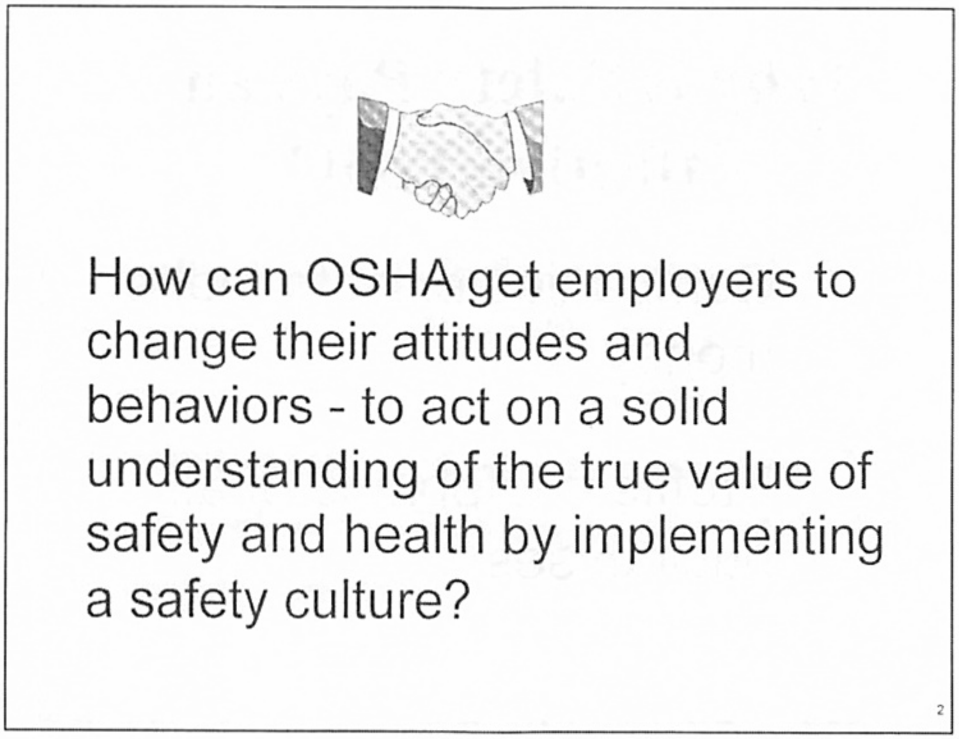
Worksheet

VIOLATION	DEFICIENCIES	CORRECTIVE ACTIONS

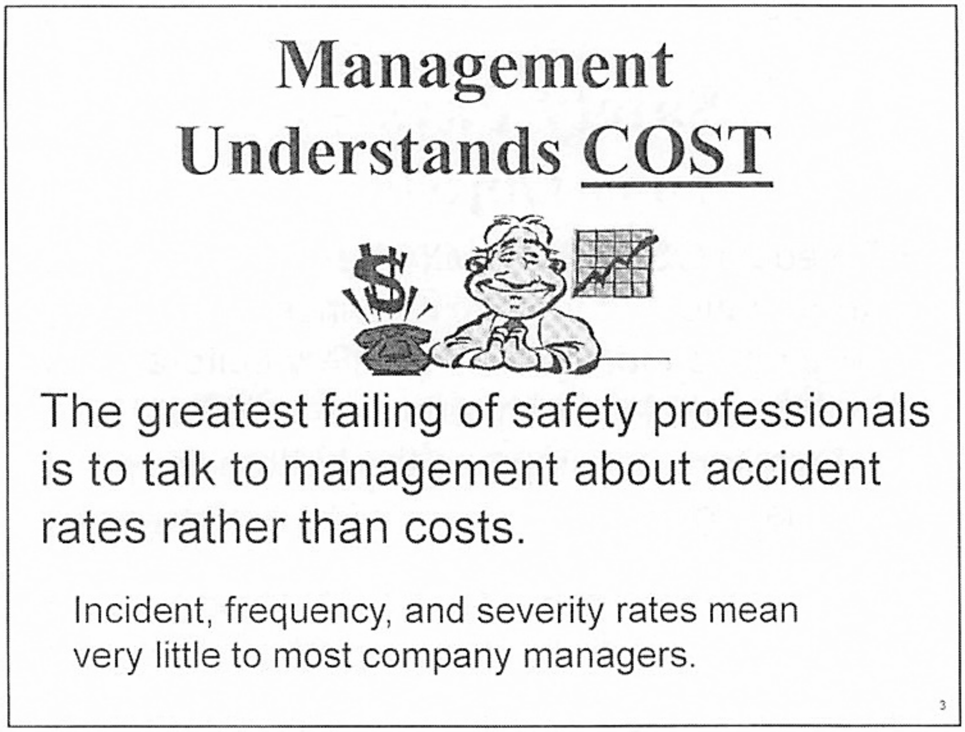
VIOLATION	DEFICIENCIES	CORRECTIVE ACTIONS

$afety Pays –
Topic Objective

- To equip OSHA staff with the knowledge and tools to convince employers that instilling a safety culture in the workplace can reduce accidents for workers and improve the bottom line for managers.



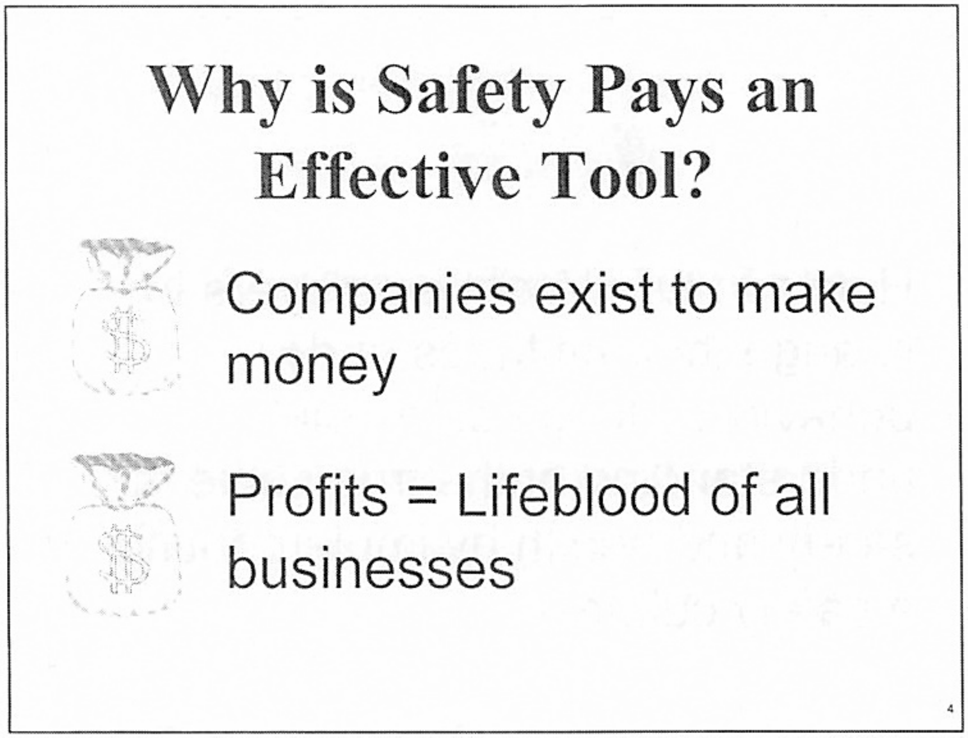
How can OSHA get employers to change their attitudes and behaviors - to act on a solid understanding of the true value of safety and health by implementing a safety culture?



Management Understands COST

The greatest failing of safety professionals is to talk to management about accident rates rather than costs.

Incident, frequency, and severity rates mean very little to most company managers.

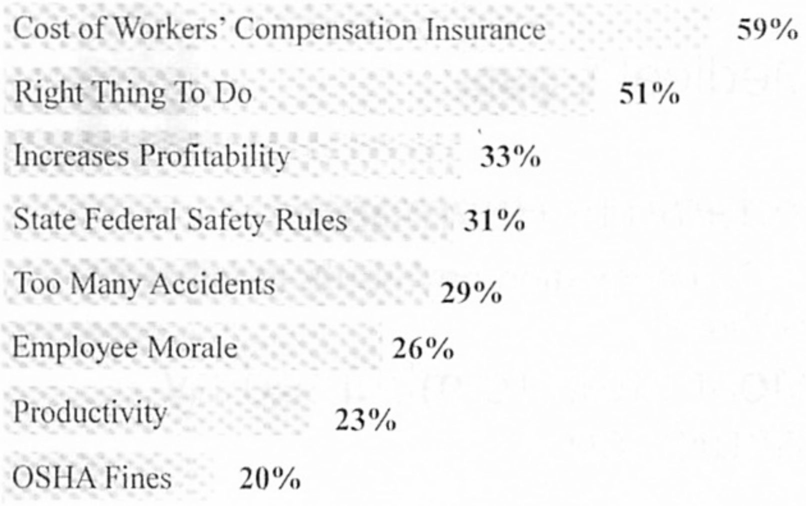


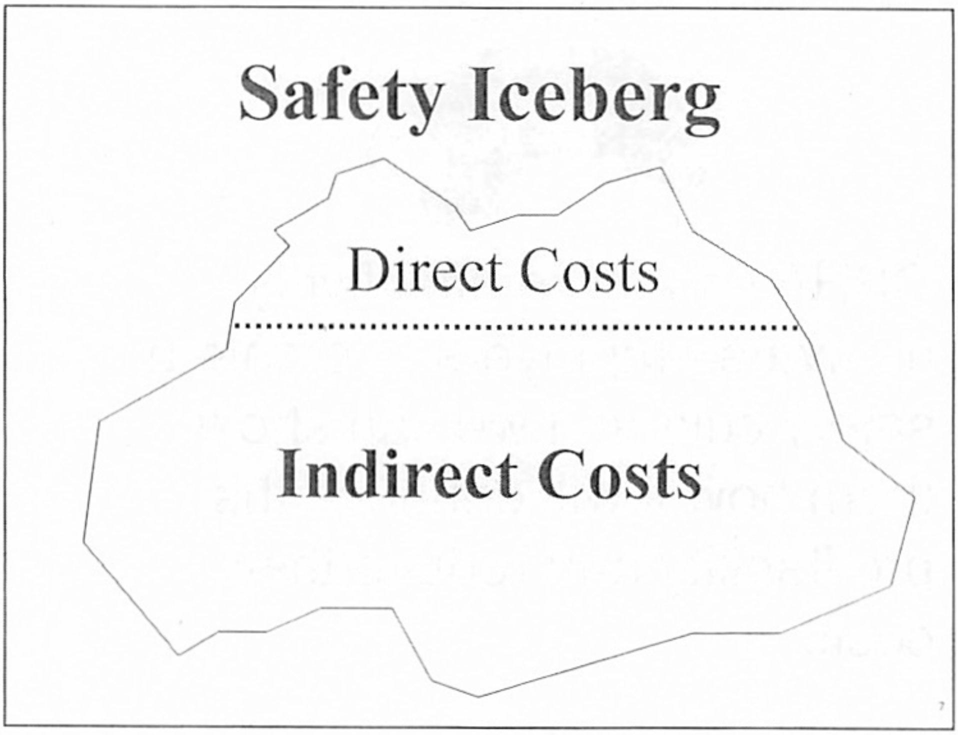
Why is Safety Pays an Effective Tool?

- Companies exist to make money
- Profits = Lifeblood of all businesses

OSHA can more effectively motivate employers to create a safety culture if we can show them how it will enhance their profitability and reduce their costs.

Most Important Motivations for Taking Safety Actions

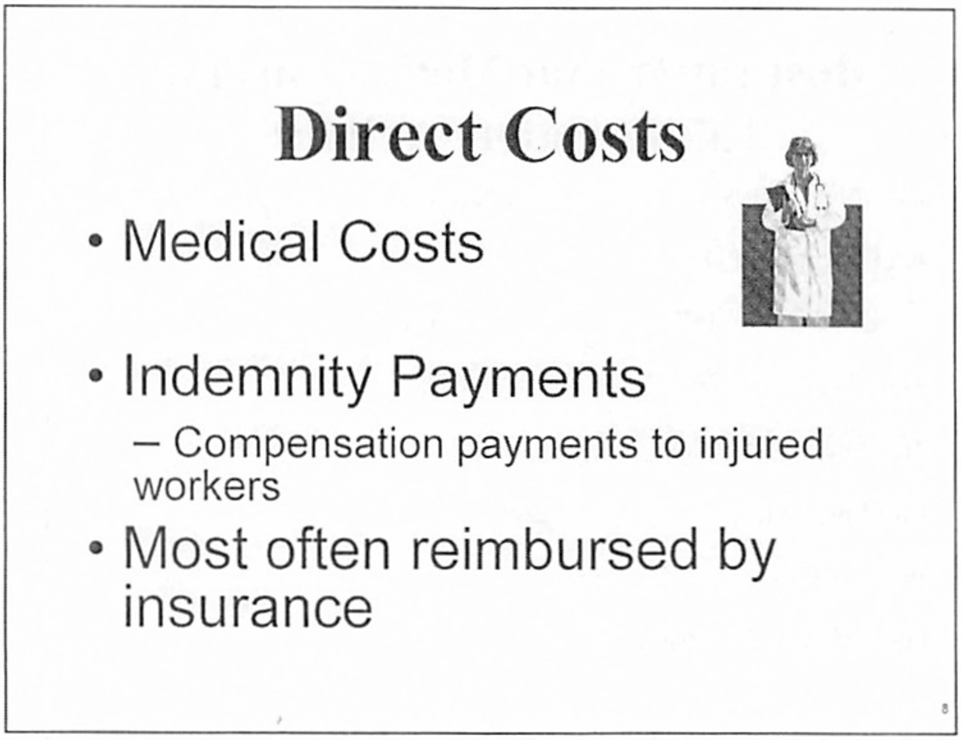




Safety Iceberg

Direct Costs

Indirect Costs



Direct Costs

- Medical Costs
- Indemnity Payments
  - Compensation payments to injured workers
- Most often reimbursed by insurance

Indirect Costs

- Non-billable costs resulting from internal systems adapting to the accident and its aftermath
- Most often uninsured
- Account for 70 – 90 % of the true cost of an accident

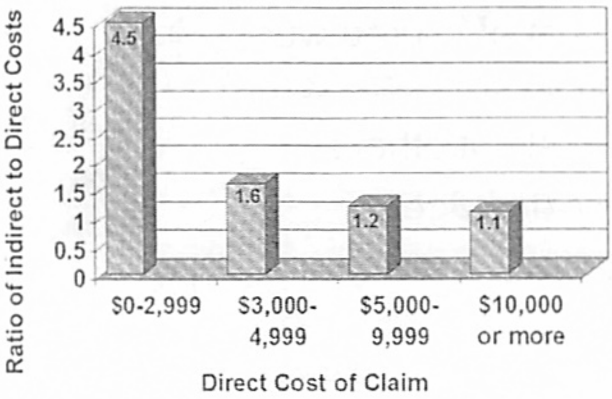
Indirect Costs May Include

- Wage cost of injured worker (not covered by workers' comp)
- Wage costs of others
- Property damage
- Administrative costs

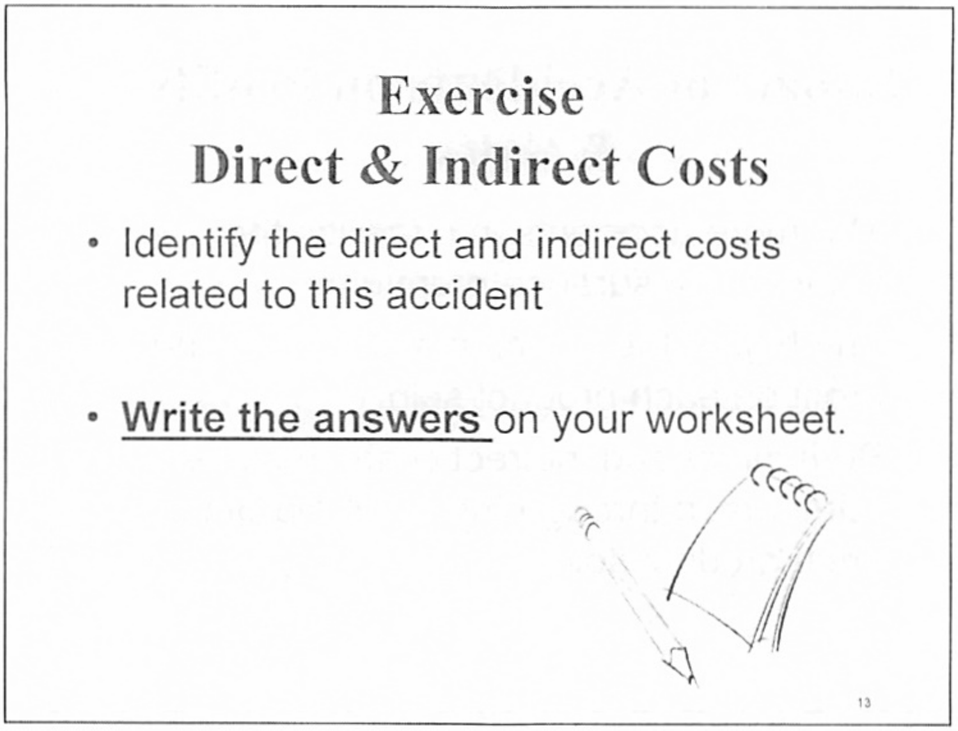
The Net Costs of Accidents

- **Indirect Costs** may be from **one to twenty (1- 20)** times the amount of **direct costs**.
- OSHA has taken a conservative approach and says that the lower the direct costs of an accident, the higher the ratio of indirect to direct costs.

OSHA's Ratio of Indirect to Direct Costs

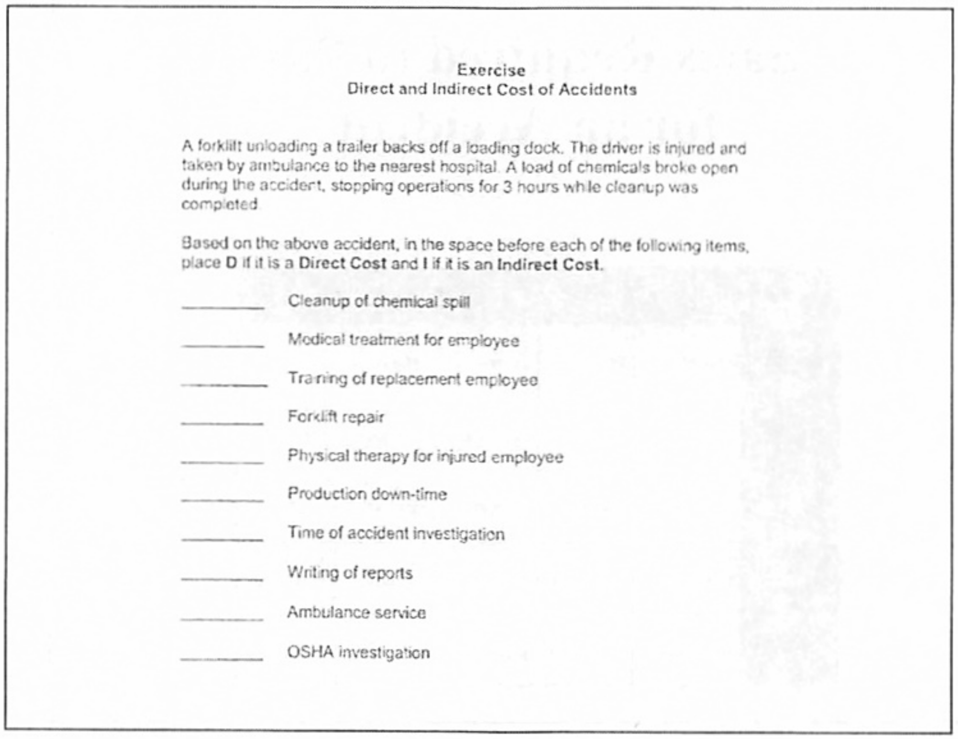


Source: Business Roundtable



Exercise
Direct & Indirect Costs

- Identify the direct and indirect costs related to this accident
- **Write the answers** on your worksheet.



Exercise
Direct and Indirect Cost of Accidents

A forklift unloading a trailer backs off a loading dock. The driver is injured and taken by ambulance to the nearest hospital. A load of chemicals broke open during the accident, stopping operations for 3 hours while cleanup was completed

Based on the above accident, in the space before each of the following items, place **D** if it is a **Direct Cost** and **I** if it is an **Indirect Cost.**

________ Cleanup of chemical spill

________ Medical treatment for employee

________ Training of replacement employee

________ Forklift repair

________ Physical therapy for injured employee

________ Production down-time

________ Time of accident investigation

________ Writing of reports

________ Ambulance service

________ OSHA investigation

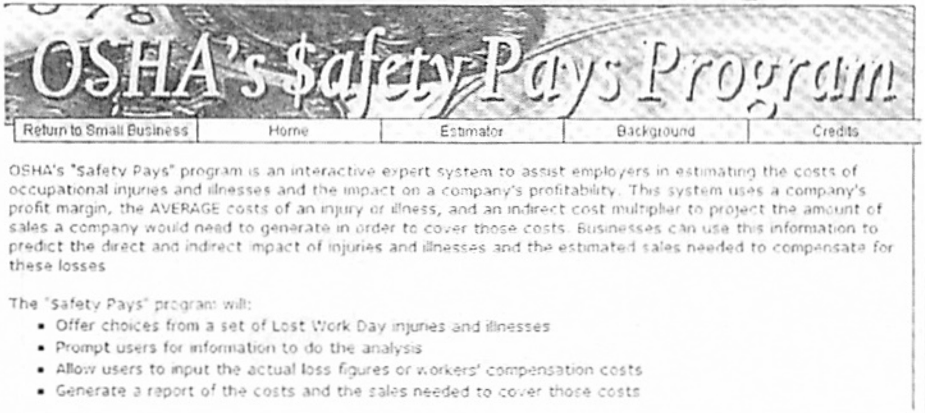
Impact of Accidents on Profits & Sales

- The more accidents in a facility, the higher the insurance premiums.
- The higher the premiums, the lower the profit on each product sold.
- Both direct and indirect costs must be reimbursed through the profit margin on each product sold.

Sales Required to Pay for an Accident

If your company profit is:

Accident Costs	1%	2%	3%	4%	5%
$1,000	$100.000	$50,000	$33.000	$25,000	$20,000
$5,000	$500,000	$250,000	$167,000	$125,000	$100,000
$10,000	$1,000,000	$500,000	$333.000	$250,000	$200.000
$25,000	$2.500,000	$1.250,000	$833,000	$625.000	$500,000
$100,000	$10,000,000	$5,000,000	$3,333,000	$2,500,000	$2,000.000



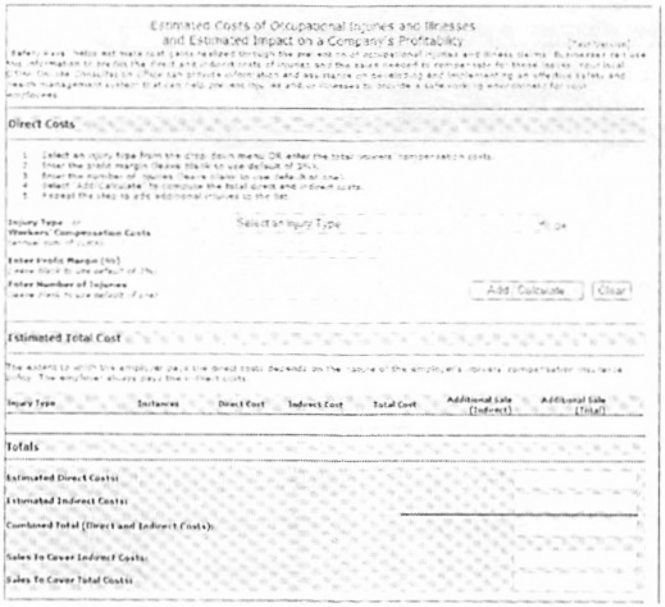
OSHA's "Safety Pays" program is an interactive expert system to assist employers in estimating the costs of occupational injuries and illnesses and the impact on a company's profitability. This system uses a company's profit margin, the AVERAGE costs of an injury or illness, and an indirect cost multiplier to project the amount of sales a company would need to generate in order to cover those costs. Businesses can use this information to predict the direct and indirect impact of injuries and illnesses and the estimated sales needed to compensate for these losses.

The "Safety Pays" program will:

- Offer choices from a set of Lost Work Day injuries and illnesses
- Prompt users for information to do the analysis
- Allow users to input the actual loss figures or workers' compensation costs
- Generate a report of the costs and the sales needed to cover those costs

http://www.osha.gov/dcsp/smallbusiness/safetypays/index.html

Online Example



Estimated Costs of Occupational Injuries and Illnesses
and Estimated Impact on a Company's Profitability

Direct Costs

Injury Type or
Workers' Compensation Costs

Enter Profit Margin (%)

Enter Number of Injuries

Estimated Total Cost

Injury Type	Instances	Direct Cost	Indirect Cost	Total Cost	Additional Sale (Indirect)	Additional Sale (Total)

Totals

Estimated Direct Costs:

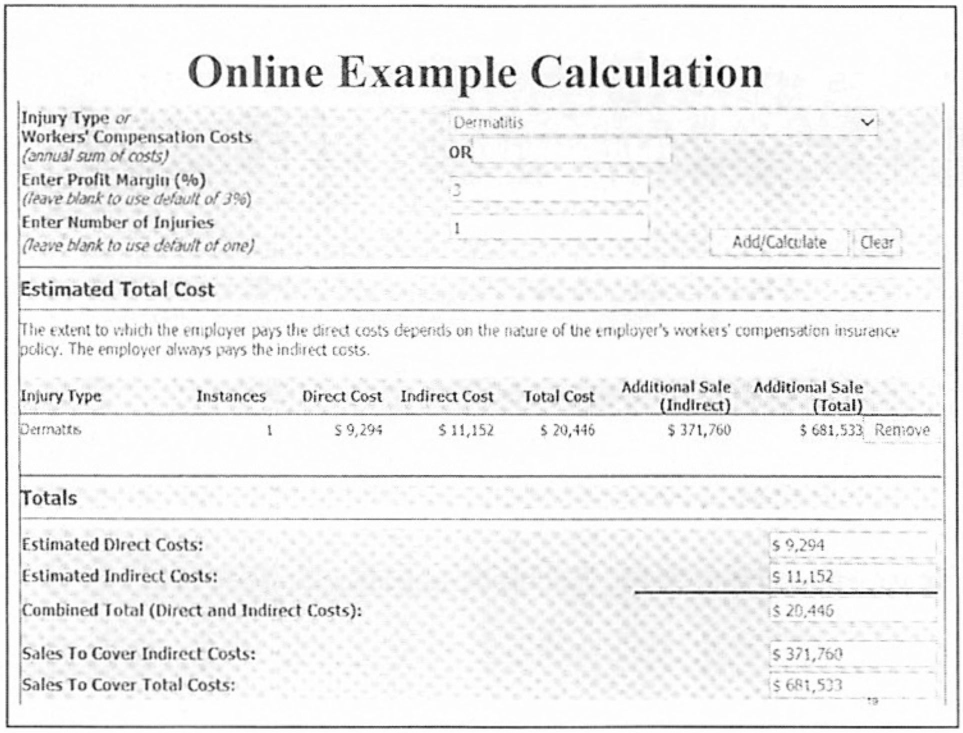
Estimated Indirect Costs:

Combined Total (Direct and Indirect Costs):

Sales To Cover Indirect Costs:

Sales To Cover Total Costs:

#2450 Evaluation of SHMS, Tools Available – Safety Pays



Online Example Calculation

Injury Type *or* **Workers' Compensation Costs** *(annual sum of costs)*	Dermatitis OR
Enter Profit Margin (%) *(leave blank to use default of 3%)*	3
Enter Number of Injuries *(leave blank to use default of one)*	1

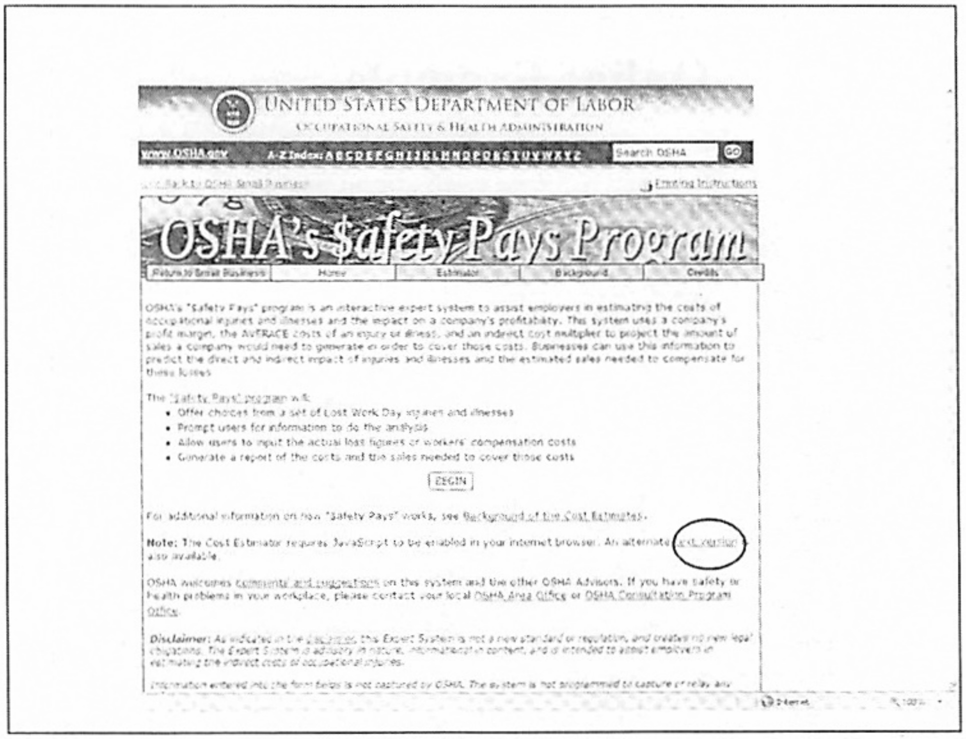
Estimated Total Cost

The extent to which the employer pays the direct costs depends on the nature of the employer's workers' compensation insurance policy. The employer always pays the indirect costs.

Injury Type	Instances	Direct Cost	Indirect Cost	Total Cost	Additional Sale (Indirect)	Additional Sale (Total)	
Dermatitis	1	$ 9,294	$ 11,152	$ 20,446	$ 371,760	$ 681,533	Remove

Totals

Estimated Direct Costs:	$ 9,294
Estimated Indirect Costs:	$ 11,152
Combined Total (Direct and Indirect Costs):	$ 20,446
Sales To Cover Indirect Costs:	$ 371,760
Sales To Cover Total Costs:	$ 681,533



UNITED STATES DEPARTMENT OF LABOR
OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION

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OSHA's "Safety Pays" program is an interactive expert system to assist employers in estimating the costs of occupational injuries and illnesses and the impact on a company's profitability. This system uses a company's profit margin, the AVERAGE costs of an injury or illness, and an indirect cost multiplier to project the amount of sales a company would need to generate in order to cover those costs. Businesses can use this information to predict the direct and indirect impact of injuries and illnesses and the estimated sales needed to compensate for these losses.

The "Safety Pays" program will:

- Offer choices from a set of Lost Work Day injuries and illnesses
- Prompt users for information to do the analysis
- Allow users to input the actual loss figures or workers' compensation costs
- Generate a report of the costs and the sales needed to cover those costs

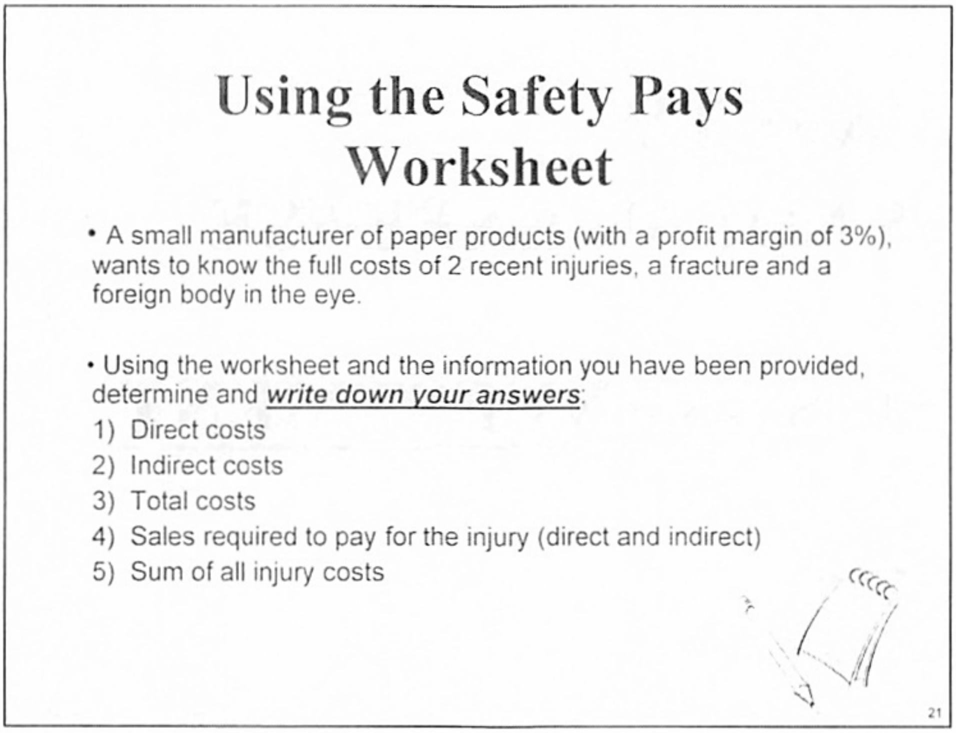
For additional information on how "Safety Pays" works, see Background of the Cost Estimates.

Note: The Cost Estimator requires JavaScript to be enabled in your internet browser. An alternate text version is also available.

OSHA welcomes comments and suggestions on this system and the other OSHA Advisors. If you have safety or health problems in your workplace, please contact your local OSHA Area Office or OSHA Consultation Program Office.

Disclaimer: *As indicated in the disclaimer, this Expert System is not a new standard or regulation, and creates no new legal obligations. The Expert System is advisory in nature, informational in content, and is intended to assist employers in estimating the indirect costs of occupational injuries.*

Information entered into the form below is not captured by OSHA. The system is not programmed to capture or relay any

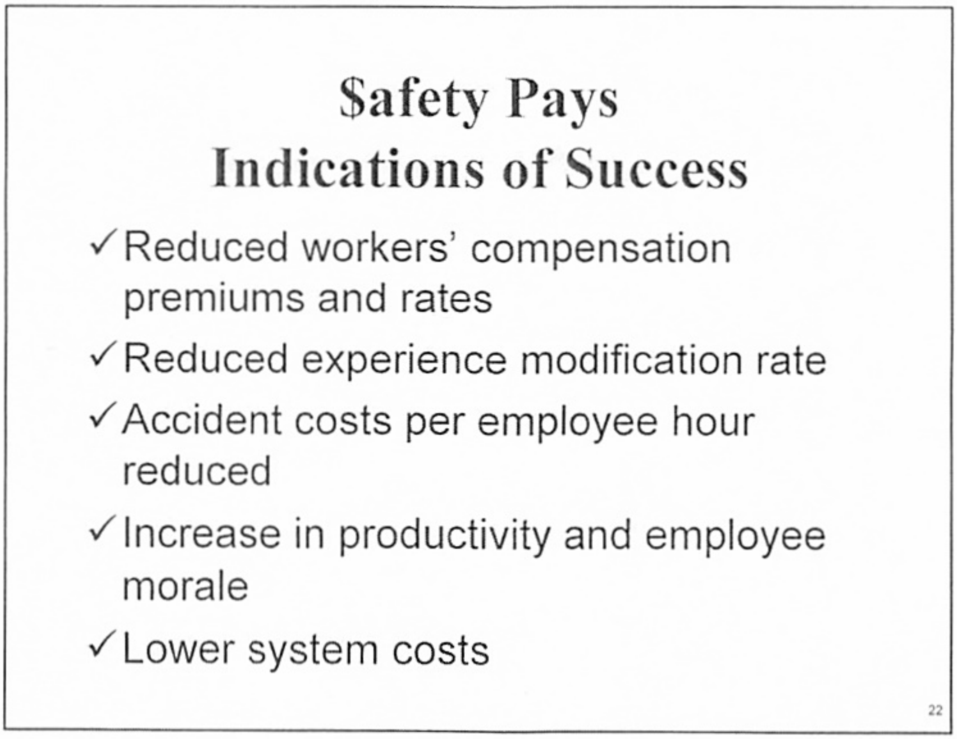


Using the Safety Pays Worksheet

- A small manufacturer of paper products (with a profit margin of 3%), wants to know the full costs of 2 recent injuries, a fracture and a foreign body in the eye.

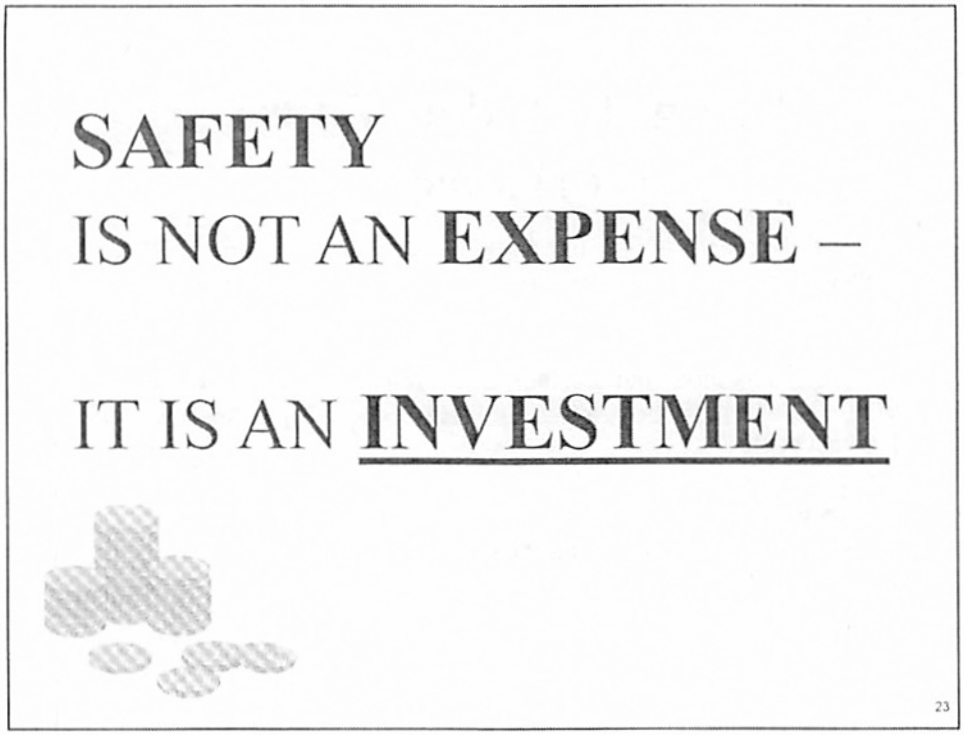
- Using the worksheet and the information you have been provided, determine and ***write down your answers***:

1) Direct costs
2) Indirect costs
3) Total costs
4) Sales required to pay for the injury (direct and indirect)
5) Sum of all injury costs



$afety Pays Indications of Success

- ✓Reduced workers' compensation premiums and rates
- ✓Reduced experience modification rate
- ✓Accident costs per employee hour reduced
- ✓Increase in productivity and employee morale
- ✓Lower system costs



SAFETY
IS NOT AN **EXPENSE** –

IT IS AN **INVESTMENT**

OSHA's $afety Pays Program

Estimated Costs of Occupational Injuries and Illnesses and Estimated Impact on a Company's Profitability Worksheet

"$afety Pays" helps estimate cost savings that can be achieved through the prevention of occupational injuries and illness claims. Businesses can use this information to predict the direct and indirect costs of injuries and the sales needed to compensate for these losses. Your local OSHA On-site Consultation Office can provide information and assistance on developing and implementing an effective safety and health management system that can help prevent injuries and/or illnesses to provide a safe working environment for your employees.

How to calculate costs:

Step 1: Select Injury Type from the table below noting the Average Direct Cost Multiplier
OR
Enter the total workers' compensation costs

Step 2: Enter the Profit Margin

Step 3: Enter the Number of Injuries

Step 4: Calculate the Total Direct Cost by multiplying the Direct Costs Multiplier by Number of Injuries.

Step 5: Calculate the Indirect Costs by multiplying the Total Direct Cost by Indirect Cost Ratio.

Step 6: Calculate the Total Costs by adding the Direct Cost to Indirect Cost

Step 7: Calculate the Additional Sales (Indirect) needed by multiplying the Indirect Cost by 100 divided by the Profit Margin.

Step 8: Calculate the Additional Sales (Total) needed by multiplying the Total Cost by 100 divided by the Profit Margin.

Step 9: Repeat the step to calculate other injuries on the worksheet.

Step 10: Calculate the sum of Total Costs by adding all Injury Type Total Direct Costs.

Worksheet

	Enter Injury Type #1	Enter Injury Type #2	Totals (Add Col #1 &#2)
Enter Injury Type **Average Direct Cost** From Injury Type Index			
Enter Injury Type Indirect Cost Ratio			
Enter the Profit Margin Percentage and change to decimal form			
Enter Number of Injuries			
Calculate **Total Direct Cost** (multiply Average Direct Cost by Number of Injuries)			
Calculate **Indirect Costs** (multiply Total Direct Cost by Indirect Cost Ratio)			
Calculate **Combined Total Costs** (add Total Direct Cost to Indirect Cost)			
Calculate **Sales To Cover Indirect Costs** (Indirect Cost/Profit Margin percentage in decimal form)			
Calculate **Sales To Cover Total Costs** (Combined Total Cost/Profit Margin percentage in decimal form)			

Injury Type Index

Injury Type	Average Direct Cost	Indirect Cost Ratio
Amputation	$63,369	1.1
Angina Pectoris	$82,669	1.1
Asbestosis	$40,652	1.1
Asphyxiation	$138,108	1.1
Black Lung	$49,232	1.1
Burn	$39,672	1.1
Carpal Tunnel Syndrome	$28,647	1.1
Concussion	$71,777	1.1
Contagious Disease	$22,406	1.1
Contusion	$26,235	1.1
Crushing	$52,894	1.1
Dermatitis	$9,294	1.2
Dislocation	$71,322	1.1
Dust Disease, NOC (all other pneumoconiosis)	$24,974	1.1
Electric Shock	$103,534	1.1
Enucleation (to remove ex: tumor, eye, etc.)	$120,793	1.1
Foreign Body	$19,454	1.1
Fracture	$45,377	1.1
Freezing	$31,987	1.1
Hearing Loss or Impairment (traumatic only)	$18,644	1.1
Heat Prostration	$20,902	1.1
Hernia	$23,083	1.1
Infection	$22,056	1.1
Inflammation	$32,080	1.1
Laceration	$18,137	1.1
Loss of Hearing	$18,601	1.1
Mental Disorder	$39,828	1.1
Mental Stress	$31,637	1.1
Multiple Injuries Including Both Physical and Psychological	$135,405	1.1
Multiple Physical Injuries Only	$78,953	1.1
Myocardial Infarction (Heart Attack)	$117,112	1.1
No Physical Injury	$28,327	1.1
Poisoning - Chemical (other than metals)	$30,121	1.1
Poisoning - General (not OD or cumulative injury)	$32,054	1.1
Puncture	$20,557	1.1
Respiratory Disorders (gases, fumes, chemicals, etc.)	$30,712	1.1
Rupture	$80,597	1.1
Severance	$97,570	1.1
Sprain	$28,338	1.1

Strain	$32,319	1.1
Syncope	$25,737	1.1
Vascular	$121,416	1.1
Vision Loss	$56,202	1.1
All Other Cumulative Injury, NOC	$39,193	1.1
All Other Occupational Disease	$32,295	1.1
All Other Specific Injuries, NOC	$40,482	1.1

Disclaimer: National Council on Compensation Insurance, Inc (NCCI) has supplied their current copyrighted data about average cost per workers' compensation insurance claim by nature of injury in NCCI states to OSHA for their use in conjunction with their website tool, "Safety Pays". NCCI makes no guarantees nor assumes any responsibility for the accuracy of any resulting data or information from the use of our numbers by OSHA or any people who use this tool. NCCI's information and data may not be otherwise used or copied in any manner.
For additional information on how "$afety Pays", see Background of the Cost Estimates.

OSHA's $afety Pays Program

Background of the Cost Estimates

The injury and illness loss cost estimates were derived from National Council on Compensation Insurance, Inc data. The loss injury data information is based on unit statistical reports submitted for policy year 2004.

The National Council on Compensation Insurance, Inc. is the largest provider of workers compensation insurance and employee injury data and statistics in the nation. The NCCI studies workplace injuries and other national and state factors impacting workers compensation. NCCI analyzes industry trends, prepares workers compensation insurance rate recommendations, assists in pricing proposed legislation, and provides a variety of data products to more than 900 insurance companies and nearly 40 state governments.

NCCI has supplied their current copyrighted data about average cost per workers' compensation insurance claim by nature of injury in NCCI states to OSHA for their use in conjunction with their Website tool, "Safety Pays". NCCI makes no guarantees nor assumes any responsibility for the accuracy of any resulting data or information from the use of our numbers by OSHA or any people who use this tool. NCCI's information and data may not be otherwise used or copied in any manner.

The indirect cost estimates provided in this program are taken from the Business Roundtable publication, Improving Construction Safety Performance, and are based on a study conducted by the Stanford University Department of Civil Engineering. The magnitude of indirect costs is inversely related to the seriousness of the injury. The less serious the injury the higher the ratio of indirect costs to direct costs (four or five times higher). For more serious injuries, indirect costs will average one or two times the direct costs of the injury. While they account for the majority of the true costs of an accident, indirect costs are usually uninsured and therefore, unrecoverable. An abbreviated listing of INDIRECT COST drivers includes:

- Any wages paid to injured workers for absences not covered by workers' compensation;
- The wage costs related to time lost though work stoppage;
- Administrative time spent by supervisors following accidents;
- Employee training and replacement costs;
- Lost productivity related to new employee learning curves and accommodation of injured employees; and
- Replacement costs of damaged material, machinery and property.

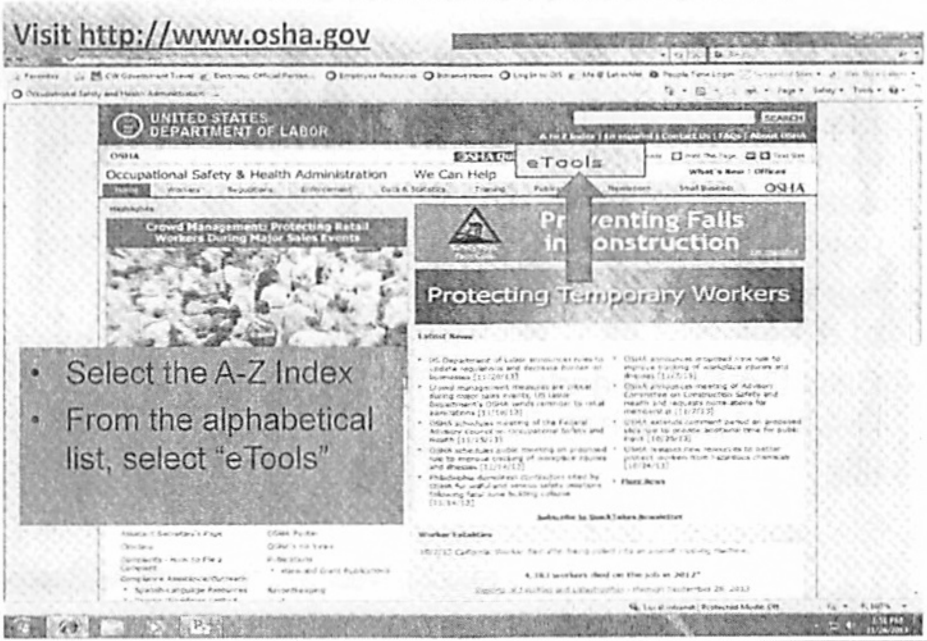
"$afety Pays" *uses the sliding scale table at right to calculate the indirect costs of the injuries and illness. Statistically, the larger the amount of claim, the smaller the ratio used for the calculation.*

Direct Costs	Indirect Cost Ratio
$0 - $2,999	4.5
$3,000 - $4,999	1.6
$5,000 - $9,999	1.2
$10,000 or more	1.1

Safety Pays
Text Example

Worksheet			
	Enter Injury Type #1	**Enter Injury Type #2**	**Totals (Add Col #1 &#2)**
	Fracture	Foreign Body	
Enter Injury Type **Average Direct Cost** **From Injury Type Index**			
Enter Injury Type **Indirect Cost Ratio**			
Enter the Profit Margin Percentage and change to decimal form			
Enter Number of Injuries			
Calculate **Total Direct Cost** **(multiply Average Direct Cost by Number of Injuries)**			
Calculate **Indirect Costs** **(multiply Total Direct Cost by Indirect Cost Ratio)**			
Calculate **Combined Total Costs** **(add Total Direct Cost to Indirect Cost)**			
Calculate **Sales To Cover Indirect Costs** **(Indirect Cost/Profit Margin percentage in decimal form)**			
Calculate **Sales To Cover Total Costs** **(Combined Total Cost/Profit Margin percentage in decimal form)**			

OSHA's Online Resources



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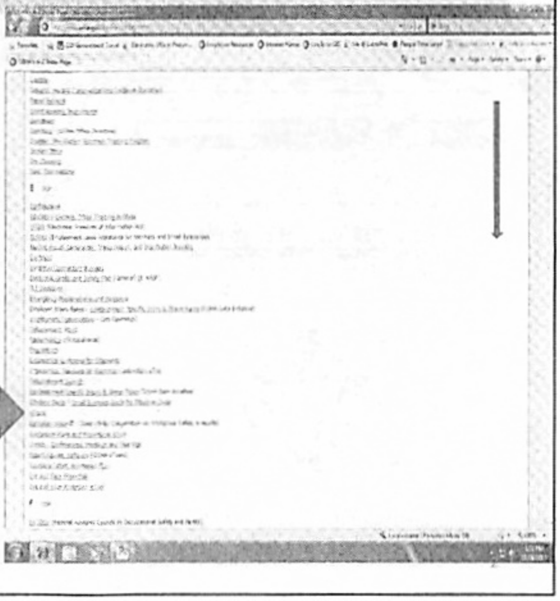
We Can Help
eTools
OSHA
Crowd Management: Protecting Retail Workers During Major Sales Events
Preventing Falls in Construction
Protecting Temporary Workers
Latest News

- Select the A-Z Index
- From the alphabetical list, select "eTools"

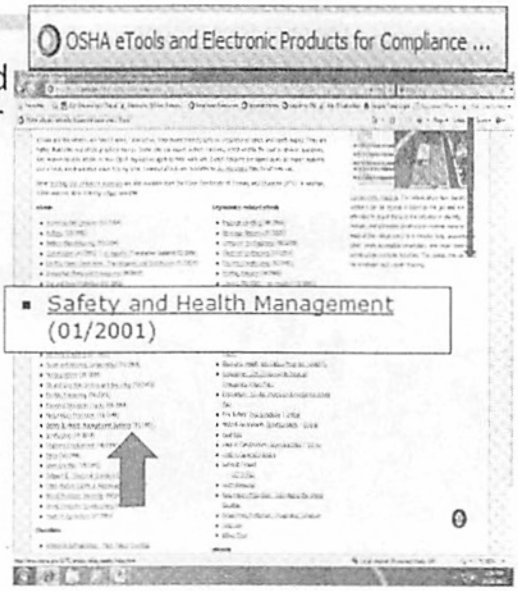
Locate the eTool Product

- The OSHA A-Z index page is now displayed
- Scroll down to E to look for eTools
- Click eTools



Locate the SHMS eTool

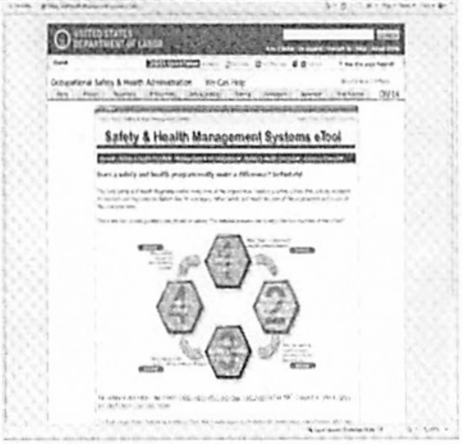
- The "OSHA eTools and Electronic Products for Compliance Assistance" page is now displayed
- Scroll down to the list of eTools
- Click the"Safety and Health Management " title


OSHA eTools and Electronic Products for Compliance ...

- Safety and Health Management (01/2001)

S&H Management Systems eTool

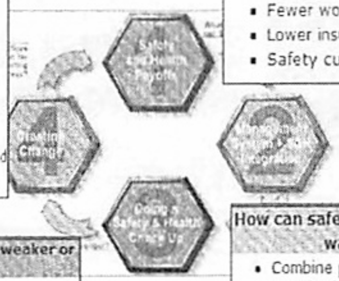
4 Step Approach



Lists Employer's Questions

1. **Safety and Health Payoffs:**
   - What "Return on Investment" can S&H programs provide?
2. **Management System and S&H Integration:**
   - How can S&H be a part of the way our business runs?
3. **Doing a Safety & Health Checkup:**
   - What indicators tell me if I'm getting weaker or stronger?
4. **Creating Change:**
   - What practices are best for assuring lasting success?

eTool Provides the Answers


Creating Change
Safety and Health Payoffs
Doing a Safety & Health Check Up

What practices are best for assuring lasting success?

- Obtain management buy-in.
- Build trust.
- Conduct self-assessments.
- Develop a site safety vision.
- Develop a system of accountability and measures.
- Implement recognition and rewards.
- Provide awareness training.
- Implement process changes.
- Continually measure, communicate results and celebrate successes.

What Return on Investment can S&H programs provide?

- Improved employee morale,
- Decreased lost time,
- Fewer workplace injuries and illnesses,
- Lower insurance costs, and
- Safety culture adoption.

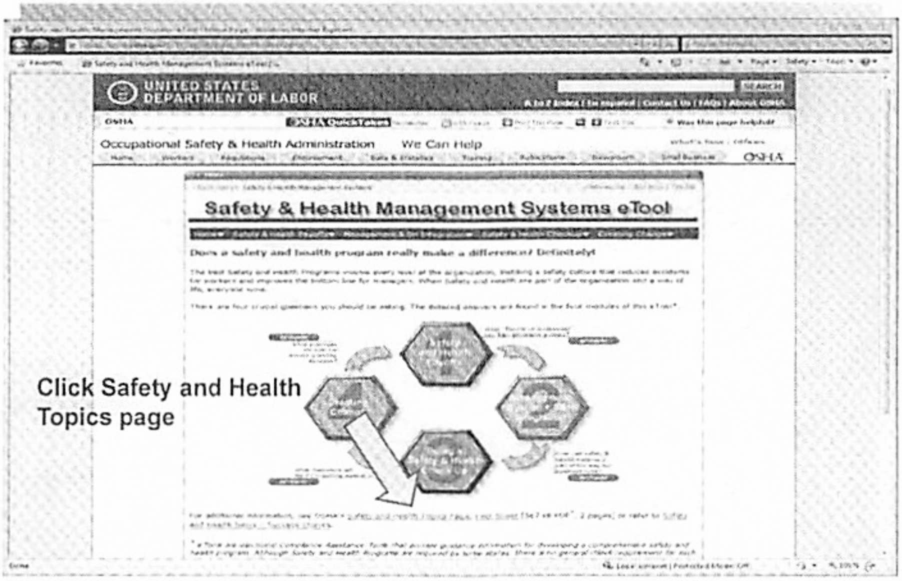
What indicators tell me if I'm getting weaker or stronger?

- Statistical reports,
- Opinion surveys,
- Risk analysis,
- Periodic inspections,
- Process improvement initiatives.

How can safety & health become a part of the way our business runs?

- Combine performance standards with S&H standards,
- Talk the talk and walk the walk,
- Top down support, and
- Bottom up implementation.

Moving to I2P2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Safety & Health Management Systems eTool

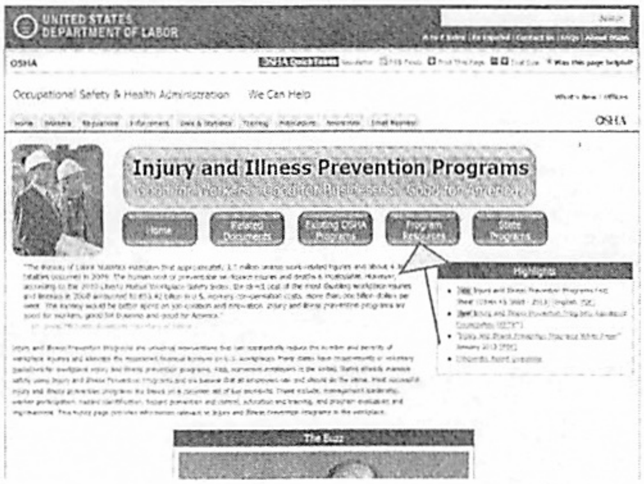
Does a safety and health program really make a difference? Definitely!

Click Safety and Health Topics page

I2P2 Page

From the I2P2 Page

- *Click Program Resources*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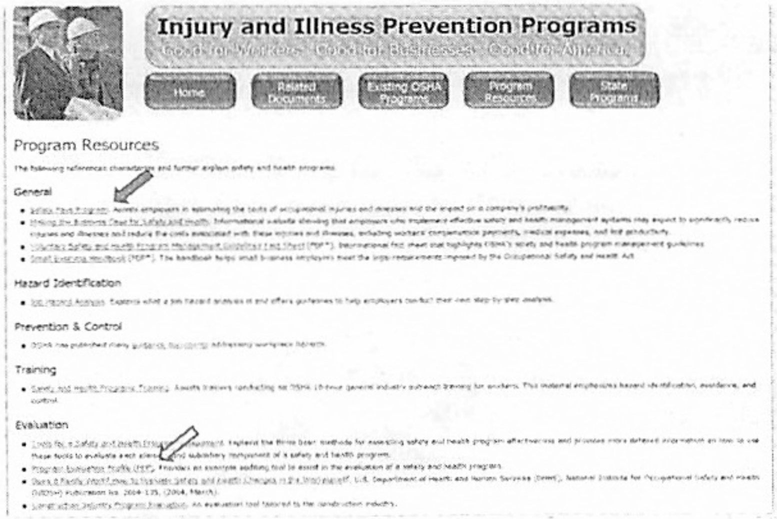
Safety Pay$ and PEP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Training

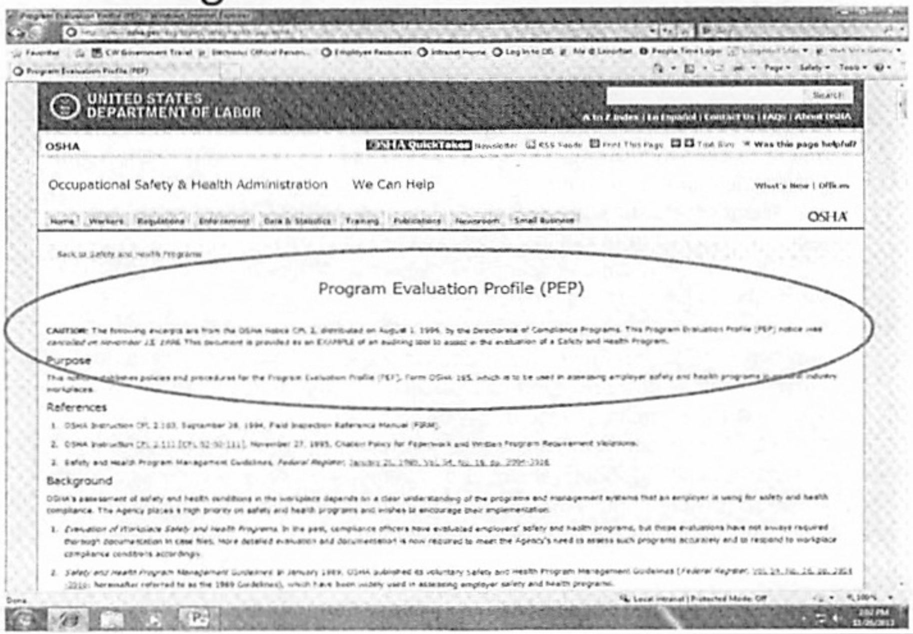
Evaluation

PEP continued

Evaluation

- **Tools for a Safety and Health Program Assessment**
  - Explains the three basic methods for assess safety and health program effectiveness and provides more detailed information on how to use these tools to evaluation each element and subsidiary component of a safety and health program
- **Program Evaluation Profile (PEP)**
  - Provides an example auditing tool to assist in the evaluation of a safety and health program
- Does It Really Work? How to Evaluation Safety and Health Changes in the Workplace
  - U.S. Department of Health and Human Services (DHHS), National Institute for Occupational Safety and Health (NIOSH) Publication No. 2004-135, (2004, March)
- Construction Industry Program Evaluation
  - An evaluation tool tailored to the construction industry

Program Evaluation Profile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Back to Safety and Health Programs
Done
Local intranet | Protected Mode: Off
100%

Program Evaluation Profile (PEP)

CAUTION: The following excerpts are from the OSHA Notice CPL 2, distributed on August 1, 1996, by the Directorate of Compliance Programs. This Program Evaluation Profile (PEP) notice was *cancelled on November 15, 1996*. This document is provided as an EXAMPLE of an auditing tool to assist in the evaluation of a Safety and Health Program.

Purpose

This notice establishes policies and procedures for the Program Evaluation Profile (PEP), Form OSHA 195, which is to be used in assessing employer safety and health programs in general industry workplaces.

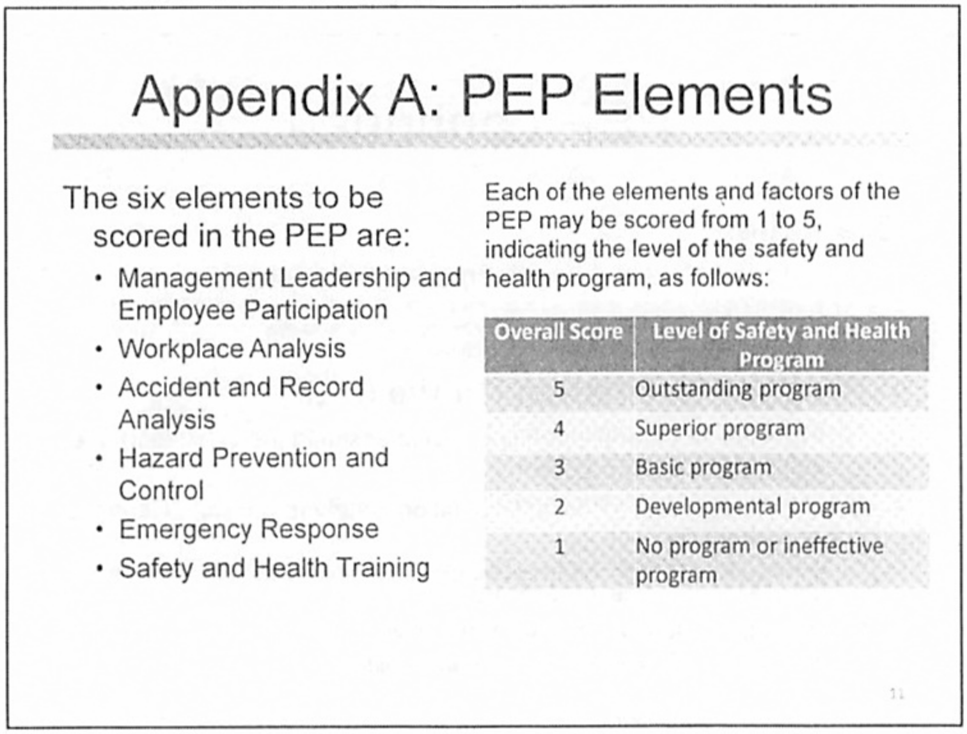
References

1. OSHA Instruction CPL 2.103, September 26, 1994, Field Inspection Reference Manual (FIRM).
2. OSHA Instruction CPL 2.111 [CPL 02-00-111], November 27, 1995, Citation Policy for Paperwork and Written Program Requirement Violations.
3. Safety and Health Program Management Guidelines, *Federal Register*, January 26, 1989, Vol. 54, No. 16, pp. 3904-3916.

Background

OSHA's assessment of safety and health conditions in the workplace depends on a clear understanding of the programs and management systems that an employer is using for safety and health compliance. The Agency places a high priority on safety and health programs and wishes to encourage their implementation.

1. *Evaluation of Workplace Safety and Health Programs.* In the past, compliance officers have evaluated employers' safety and health programs, but those evaluations have not always required thorough documentation in case files. More detailed evaluation and documentation is now required to meet the Agency's need to assess such programs accurately and to respond to workplace compliance conditions accordingly.
2. *Safety and Health Program Management Guidelines.* In January 1989, OSHA published its voluntary Safety and Health Program Management Guidelines (*Federal Register*, Vol. 54, No. 16, pp. 3904-3916); hereinafter referred to as the 1989 Guidelines), which have been widely used in assessing employer safety and health programs.



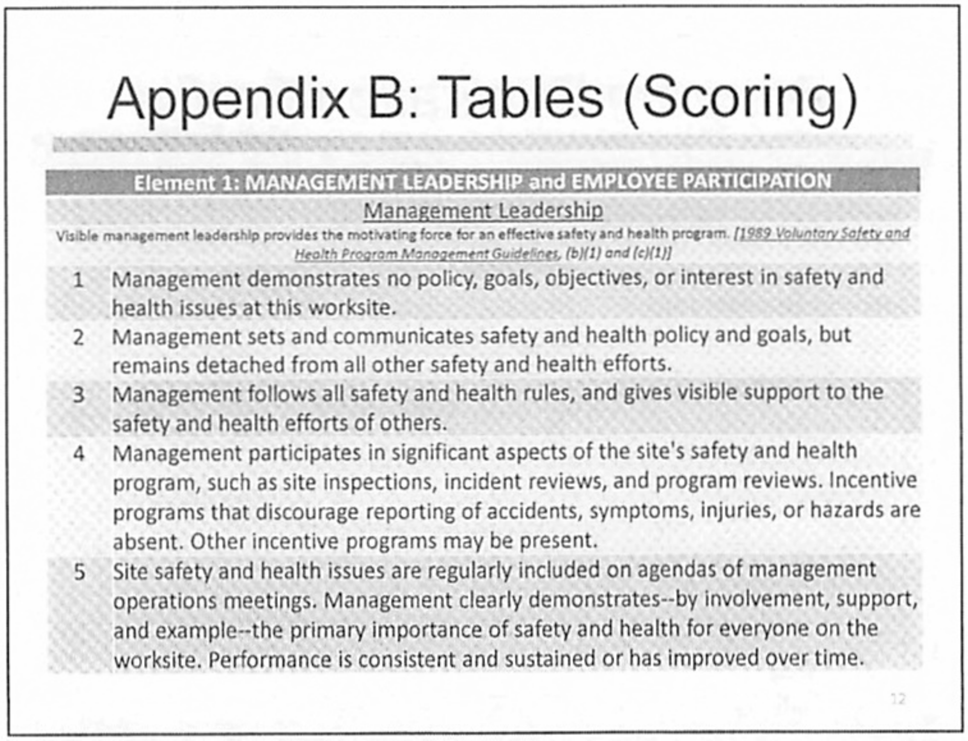
Appendix A: PEP Elements

The six elements to be scored in the PEP are:

- Management Leadership and Employee Participation
- Workplace Analysis
- Accident and Record Analysis
- Hazard Prevention and Control
- Emergency Response
- Safety and Health Training

Each of the elements and factors of the PEP may be scored from 1 to 5, indicating the level of the safety and health program, as follows:

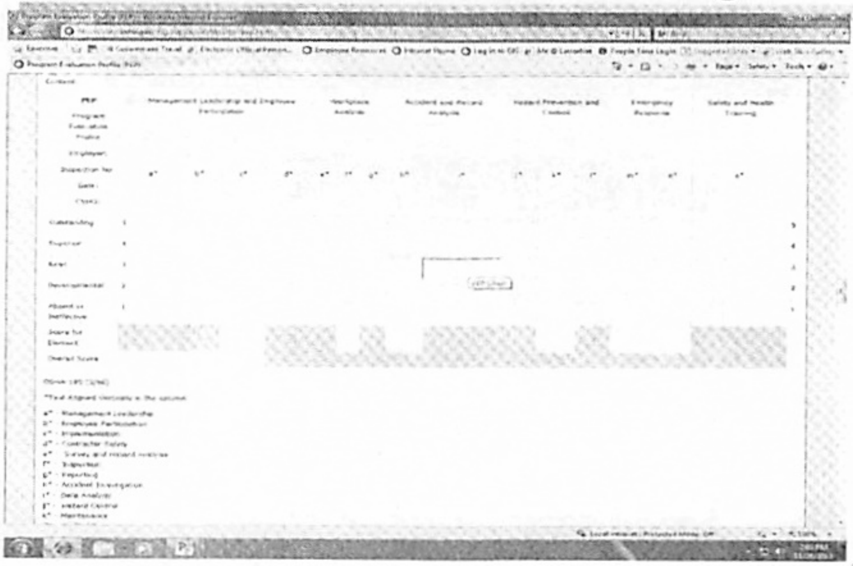
Overall Score	Level of Safety and Health Program
5	Outstanding program
4	Superior program
3	Basic program
2	Developmental program
1	No program or ineffective program

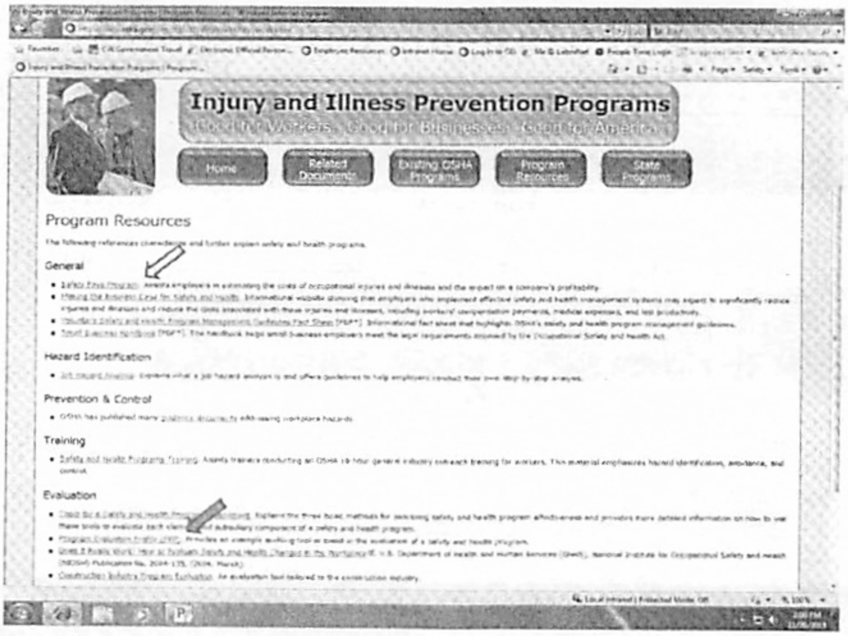


Appendix B: Tables (Scoring)

Element 1: MANAGEMENT LEADERSHIP and EMPLOYEE PARTICIPATION	
	Management Leadership
	Visible management leadership provides the motivating force for an effective safety and health program. *[1989 Voluntary Safety and Health Program Management Guidelines, (b)(1) and (c)(1)]*
1	Management demonstrates no policy, goals, objectives, or interest in safety and health issues at this worksite.
2	Management sets and communicates safety and health policy and goals, but remains detached from all other safety and health efforts.
3	Management follows all safety and health rules, and gives visible support to the safety and health efforts of others.
4	Management participates in significant aspects of the site's safety and health program, such as site inspections, incident reviews, and program reviews. Incentive programs that discourage reporting of accidents, symptoms, injuries, or hazards are absent. Other incentive programs may be present.
5	Site safety and health issues are regularly included on agendas of management operations meetings. Management clearly demonstrates--by involvement, support, and example--the primary importance of safety and health for everyone on the worksite. Performance is consistent and sustained or has improved over time.

PEP Elements/Scoring





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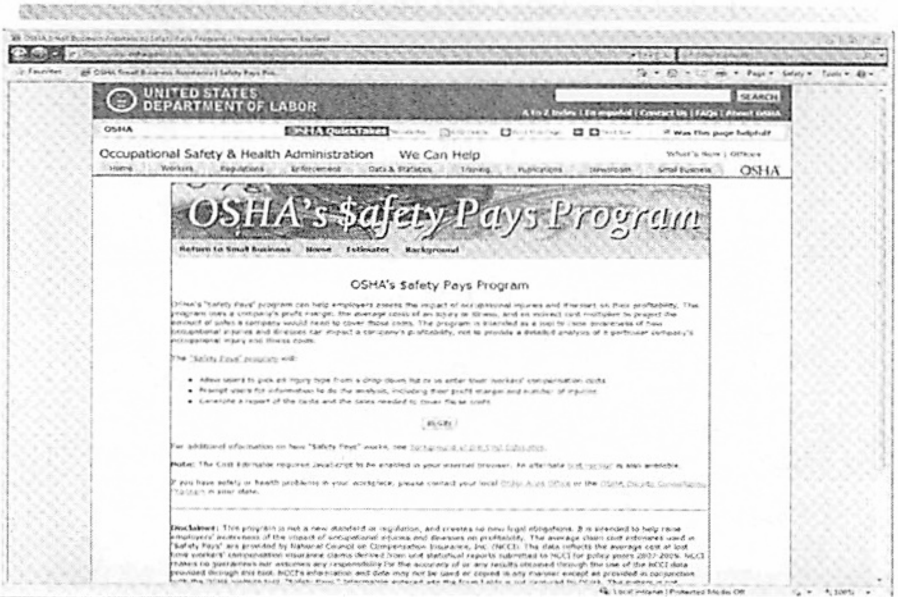
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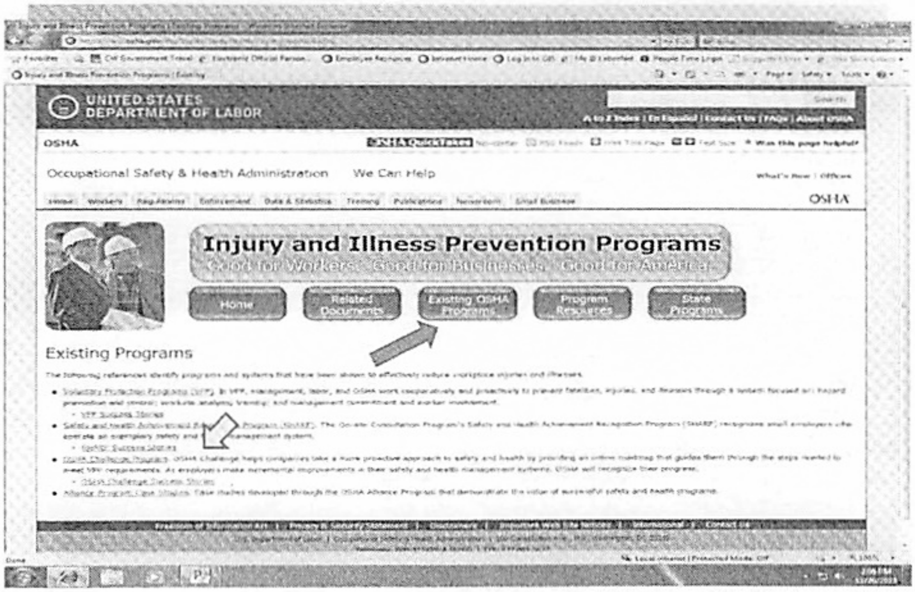
OSHA's Safety Pays Program

OSHA Program Successes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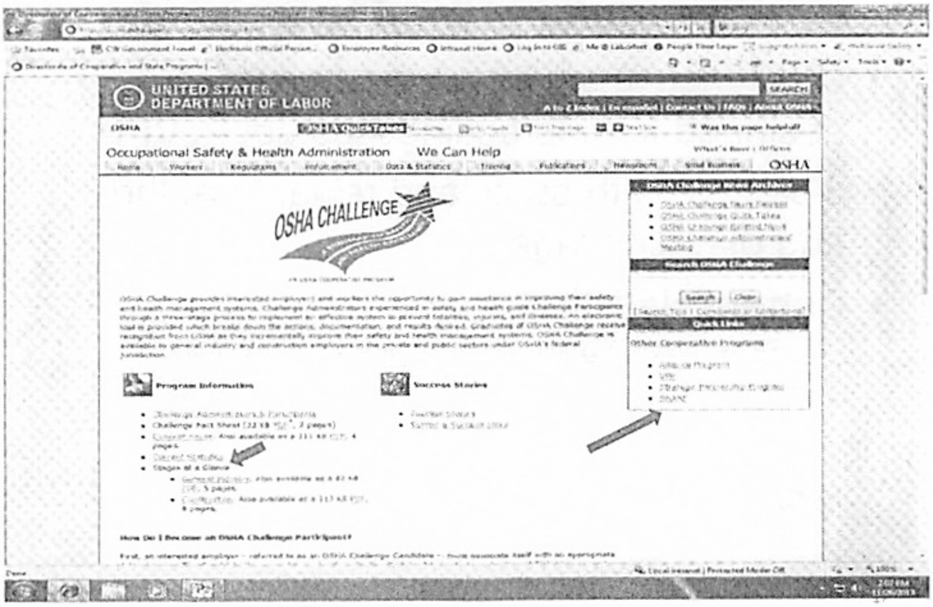
OSHA Challenge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How Do I Become an OSHA Challenge Participant?

Challenge

Four Categories

1. Management Leadership
2. Worksite Analysis
3. Hazard Prevention and Control
4. Safety and Health Training

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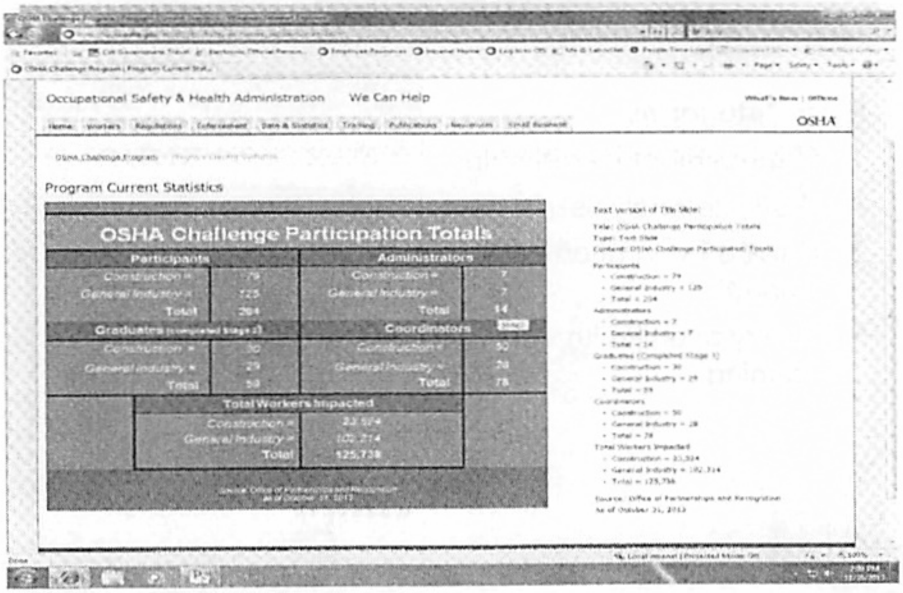
Challenge Stages at a Glance - Construction Track

Challenge

- Challenge is a step-by-step process designed to help businesses get to VPP
- 3 stages, with goals and rewards at the end of each stage
- Current statistics:
  http://www.osha.gov/dcsp/vpp/challenge/current_statistics/index.html

OSHA CHALLENGE

Some Challenge Statistics



Occupational Safety & Health Administration We Can Help

OSHA

Program Current Statistics

OSHA Challenge Participation Totals

Participants		Administrators	
Construction =	79	Construction =	7
General Industry =	125	General Industry =	7
Total	204	Total	14
Graduates (completed Stage 1)		**Coordinators**	
Construction =	30	Construction =	50
General Industry =	29	General Industry =	28
Total	59	Total	78

Total Workers Impacted	
Construction =	23,524
General Industry =	102,214
Total	125,738

Source: Office of Partnerships and Recognition
as of October 31, 2013

Text version of This Slide:

Title: OSHA Challenge Participation Totals
Type: Text Slide
Content: OSHA Challenge Participation Totals

Participants
- Construction = 79
- General Industry = 125
- Total = 204

Administrators
- Construction = 7
- General Industry = 7
- Total = 14

Graduates (Completed Stage 1)
- Construction = 30
- General Industry = 29
- Total = 59

Coordinators
- Construction = 50
- General Industry = 28
- Total = 78

Total Workers Impacted
- Construction = 23,524
- General Industry = 102,214
- Total = 125,738

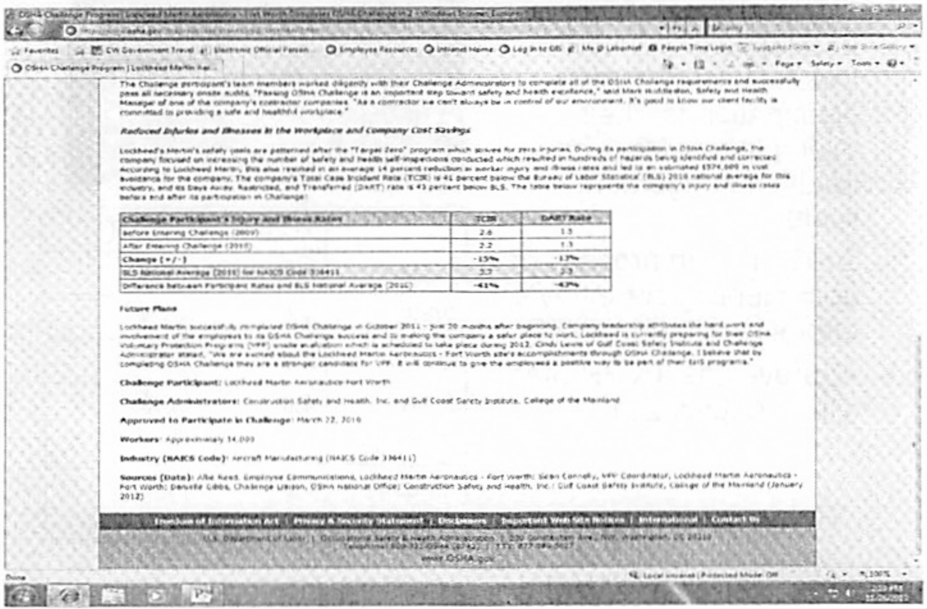
Source: Office of Partnerships and Recognition
As of October 31, 2013

OSHA Challenge Pilot Success Story: Ameristar Fence Products

- Entered OSHA Challenge in August 2009
- Uses a "team mentality" to help maintain its high safety and health standards
- In approximately 2 years, there has been an 84 % reduction in company's injury rate

AMERISTAR® FENCE PRODUCTS

Lockheed Martin Aeronautics - Fort Worth Completes OSHA Challenge in 20 Months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www.OSHA.gov
Local intranet | Protected Mode: Off

The Challenge participant's team members worked diligently with their Challenge Administrators to complete all of the OSHA Challenge requirements and successfully pass all necessary onsite audits. "Passing OSHA Challenge is an important step toward safety and health excellence," said Mark Middleton, Safety and Health Manager of one of the company's contractor companies. "As a contractor we can't always be in control of our environment. It's good to know our client facility is committed to providing a safe and healthful workplace."

Reduced Injuries and Illnesses in the Workplace and Company Cost Savings

Lockheed's Martin's safety goals are patterned after the "Target Zero" program which strives for zero injuries. During its participation in OSHA Challenge, the company focused on increasing the number of safety and health self-inspections conducted which resulted in hundreds of hazards being identified and corrected. According to Lockheed Martin, this also resulted in an average 14 percent reduction in worker injury and illness rates and led to an estimated $574,000 in cost avoidance for the company. The company's Total Case Incident Rate (TCIR) is 41 percent below the Bureau of Labor Statistics' (BLS) 2010 national average for this industry, and its Days Away, Restricted, and Transferred (DART) rate is 43 percent below BLS. The table below represents the company's injury and illness rates before and after its participation in Challenge:

Challenge Participant's Injury and Illness Rates	TCIR	DART Rate
Before Entering Challenge (2009)	2.6	1.5
After Entering Challenge (2011)	2.2	1.3
Change (+/-)	-15%	-13%
BLS National Average (2010) for NAICS Code 336411	3.7	2.3
Difference between Participant Rates and BLS National Average (2010)	**-41%**	**-43%**

Future Plans

Lockheed Martin successfully completed OSHA Challenge in October 2011 - just 20 months after beginning. Company leadership attributes the hard work and involvement of the employees to its OSHA Challenge success and to making the company a safer place to work. Lockheed is currently preparing for their OSHA Voluntary Protection Programs (VPP) onsite evaluation which is scheduled to take place during 2012. Cindy Lewis of Gulf Coast Safety Institute and Challenge Administrator stated, "We are excited about the Lockheed Martin Aeronautics - Fort Worth site's accomplishments through OSHA Challenge. I believe that by completing OSHA Challenge they are a stronger candidate for VPP. It will continue to give the employees a positive way to be part of their S&H programs."

Challenge Participant: Lockheed Martin Aeronautics-Fort Worth

Challenge Administrators: Construction Safety and Health, Inc. and Gulf Coast Safety Institute, College of the Mainland

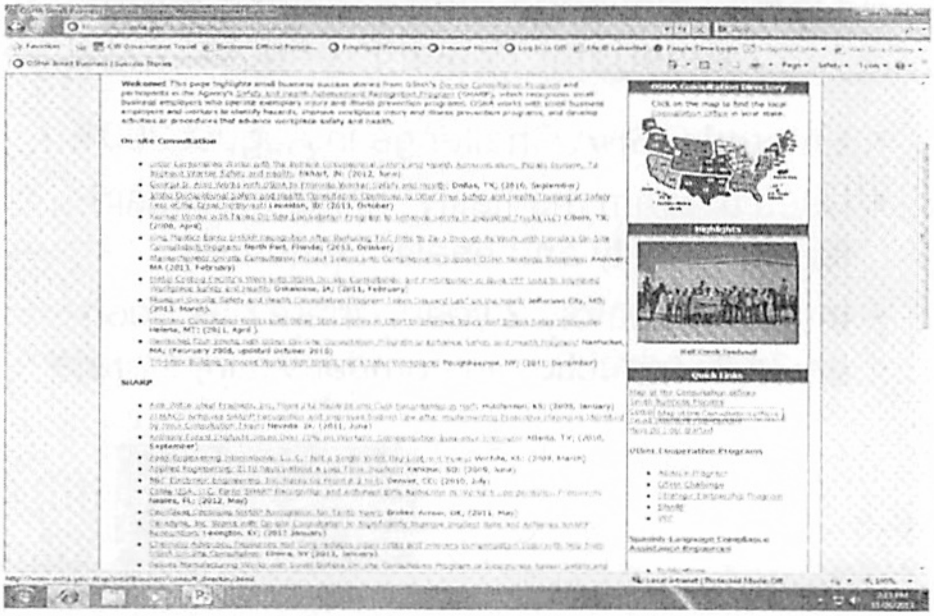
Approved to Participate in Challenge: March 22, 2010

Workers: Approximately 14,000

Industry (NAICS Code): Aircraft Manufacturing (NAICS Code 336411)

Sources (Date): Allie Reed, Employee Communications, Lockheed Martin Aeronautics - Fort Worth; Sean Connelly, VPP Coordinator, Lockheed Martin Aeronautics - Fort Worth; Danielle Gibbs, Challenge Liaison, OSHA National Office; Construction Safety and Health, Inc.; Gulf Coast Safety Institute, College of the Mainland (January 2012)

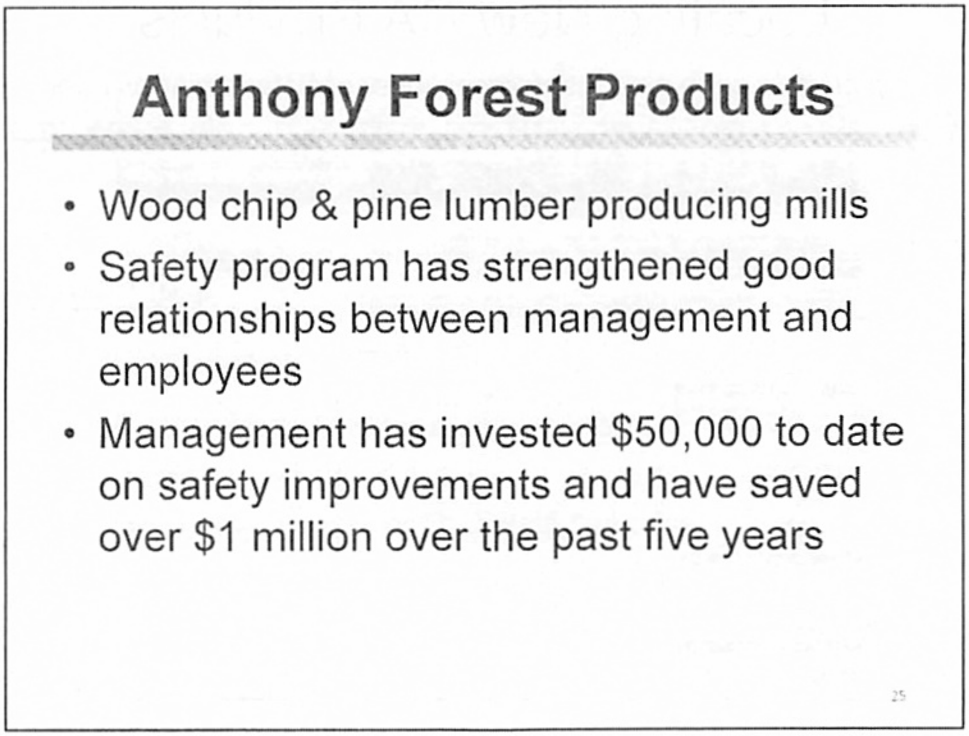
SHARP/Consult Successes



Tecton Products

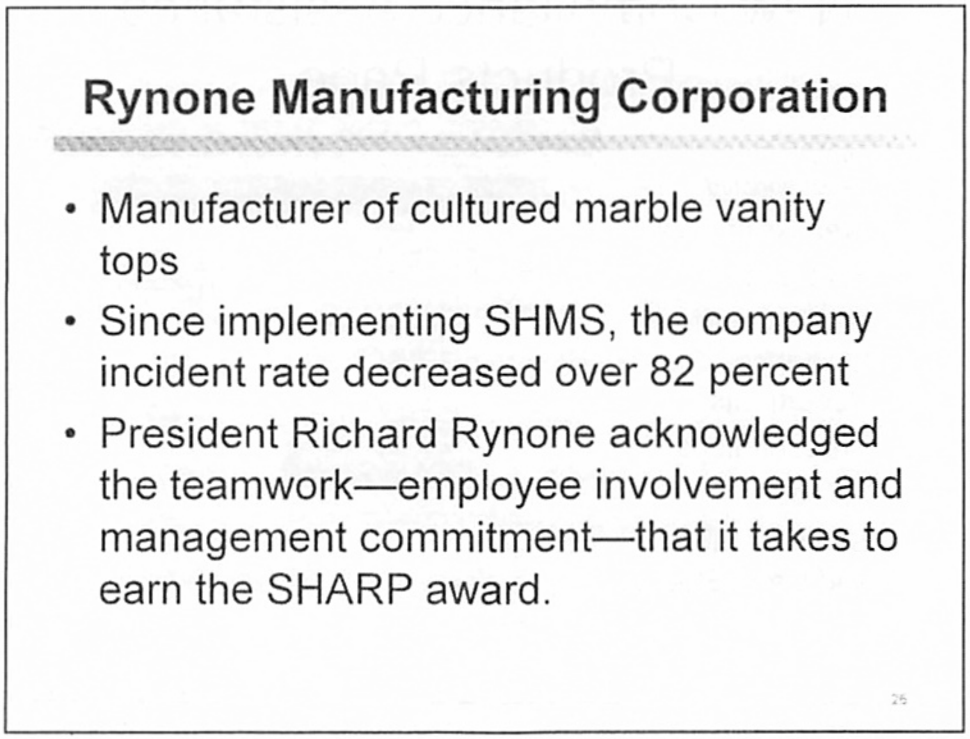
- In 2005, earned North Dakota's first SHARP designation for their exemplary safety and health management system
- 2009 - Began process of documenting company's efforts in pursuit of VPP
- Approved as a VPP Star site in August 2011

	TCIR	DART
2008	3.9	0.4
2009	4.5	1.5
2010	3.5	0.0
3 YR Average	**4.0**	**0.6**
Industry Average	**5.0**	**2.7**



Anthony Forest Products

- Wood chip & pine lumber producing mills
- Safety program has strengthened good relationships between management and employees
- Management has invested $50,000 to date on safety improvements and have saved over $1 million over the past five years

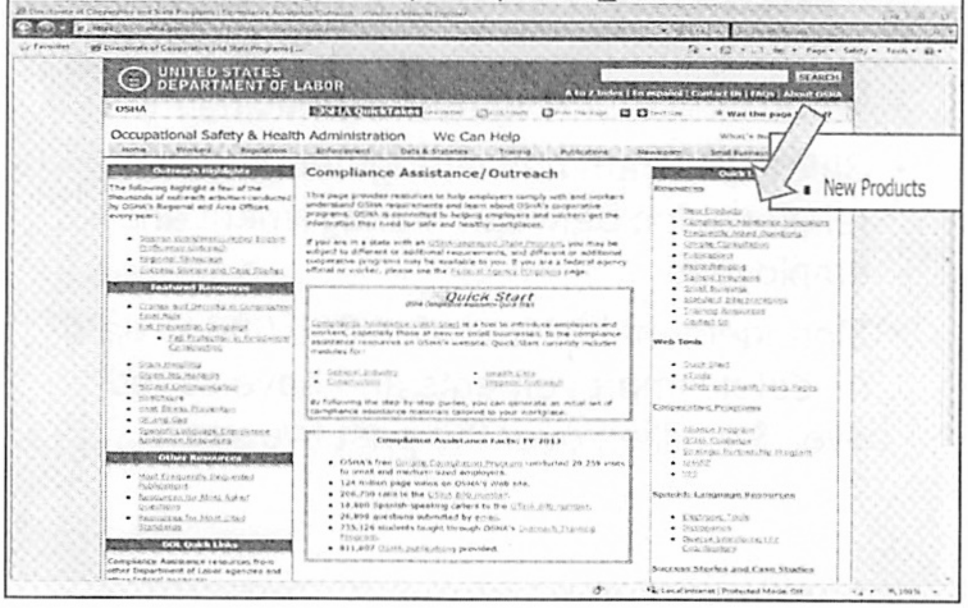


Rynone Manufacturing Corporation

- Manufacturer of cultured marble vanity tops
- Since implementing SHMS, the company incident rate decreased over 82 percent
- President Richard Rynone acknowledged the teamwork—employee involvement and management commitment—that it takes to earn the SHARP award.

Locating New CA Products

https://www.osha.gov/dcsp/compliance_assistance/index.html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Las caidas desde escaleras pueden ser mortales: Uselas de forma segura
1 2 3 4

Workers Compensation Overview

Workers' compensation premiums depend upon the nature of your business, the jobs your employees perform and the number of hours they work. The cost of workers' compensation insurance is determined by the workers' compensation board in your state. Although base rates vary slightly from state to state, the basic process each state uses to calculate base rates is similar.

Each type of occupation is assigned a risk classification. Risk is determined by two factors: the frequency of on-the-job injury and the severity of injury. Severity is measured by both medical payments and indemnity benefits (payments made directly to the injured employee to compensate for losses suffered as a result of an accident).

In California, for example, roofers have the highest occupational risk classification, and office clerks have the lowest. Obviously the occupational hazards of a roofer are much different and quite a bit higher than those of an office clerk. Therefore, workers' compensation rates are much higher for roofing companies than for administrative companies.

To arrive at a base rate for workers' compensation insurance, each classification is translated into a dollar amount, which is then multiplied by 1 percent per $100 of the total payroll for that employee. For example, the office clerk classification in California is roughly $1.25 per $100. So if that employee is paid $500 per week, the workers' compensation insurance premium for that employee costs roughly $6.25 per week.

Workers' compensation insurance carriers can reduce or increase base rates based on a number of factors. The most important factor is the employer's safety history.

Companies are assigned an experience modified (E-Mod) based on their industry and past history. Understanding the experience modification rating (Experience Mod) and monitoring it regularly is key in reducing a company's Workers' Compensation costs. It is also an excellent measure of how loss prevention and control practices stack up to others in your industry.

Simply speaking the Experience Mod or E-Mod compares your workers' compensation claims experience to other employers of similar size operating in the same type of business. Most employers who have an annual premium in excess of $3,000 will receive an Experience Mod. The Experience Mod is calculated by the National Council on Compensation Insurance (NCCI) or in some states an independent agency. If you are at the industry average, your Experience Mod is a 1.0. If your experience is 20% better then average your Experience Mod would be a .80 or 20% worse, 1.20.

Regardless of the industry you're in, the best way to control the cost of workers' compensation insurance premiums is to avoid injury claims. A safe environment, effective safety training, and ongoing programs to promote safe work habits are keys to preventing employee injury.

Enhancing workplace safety will improve your workers' quality of life as well as your bottom line. Consider some of the following ideas:

- Develop and effective safety and health management system, including programs that define responsibilities, rules for safety, safe work practices, hazard assessments, and disciplinary action procedures.
- Give each employee a copy of your workplace safety manual that details your policies, rules, responsibilities and safe work practices, as well as procedures for reporting hazards and injuries.
- Conduct regular inspections of the facility to identify and correct hazards such as poor lighting, unsafe warehouse conditions and ergonomically incorrect work stations.
- Communicate to employees the importance of safety in the workplace.
- Provide effective training for your workers on the hazards to which they may be exposed
- Keep detailed records of all accidents and conduct periodic reviews to identify trends.
- Set quantifiable goals for improvement.
- Create return-to-work programs for injured employees and stay in close contact with employees who are out.
- Use ergonomic products. The right chairs, keyboards, mats and tables can sharply reduce claims.
- Provide protective equipment. Goggles, helmets, gloves and other safety gear make sense in many situations.
- Award and recognize safe operations.

Overview and Instructions for Experience Modification Calculation

(http://idc.ncrb.org/mod_calc/instructions.asp)

General Overview	Instructions
➢ *Experience Period*	➢ *Rating Effective Date*
➢ *Experience Rating Eligibility*	➢ *Medical Only < $5000*
➢ *Claim Information*	➢ *Medical Only ≥ $5000*
➢ *Payroll Information*	➢ *Medical and Indemnity < $5000*
➢ *Calculation of Experience Modification*	➢ *Medical and Indemnity ≥ $5000*
➢ *Assigned Risk Adjustment Program*	➢ *Payroll*
	➢ *Catastrophes*

General Overview

This section provides a brief explanation of experience rating and the process of calculating the experience modification. However, it will not address all of the details of the experience modification calculation and associated terminology. For additional information or clarification, please contact the Bureau.

Experience Period

- *The experience rating calculation generally consists of an experience period of three policy years (36 months) of class code, payroll and claim data. The most recent policy year of data used is the policy year that expired one year prior to the rating effective date.*

- *The experience rating calculation may include up to 3¾ years of class code, payroll and claim data, provided one of the policy periods is from a policy that was in effect for nine months or less.*

- *The experience rating calculation may include less than three years of class code, payroll and claim data, provided the employer meets the minimum premium eligibility requirements.*
- *Please note that this application contemplates only rating effective dates of 04/01/2000 and later.*

Experience Rating Eligibility

- *Experience rating is mandatory for all employers that meet the minimum premium eligibility threshold.*
- *Since December 1991, an insured is eligible for experience rating when the last policy year or last two policy years of the experience period produced a premium of at least $5,000. If more than two years, an average annual premium of at least $2,500 is required.*
-
- *Effective January 1, 2007, an insured is eligible for experience rating when the last policy year or last two policy years of the experience period produced a premium of at least $8,000. If more than two years, an average annual premium of at least $4,000 is required.*
- *The NCRB calculates experience ratings for employers that have operations only in North Carolina. Employers that have multi-state operations may be subject to interstate experience rating.*

Claim Information

- *Claims reported and used in the experience rating calculations are required to be on an incurred (paid plus reserves) basis.*
- *Claims are separated between "medical only" and claims with both medical and indemnity values.*
- *Medical only claims are reduced by seventy percent when calculating the experience modification.*
- *All claims over $5,000 are reduced to a maximum primary loss value of $5,000.*
- *Once all claim information is entered and calculated, that data will be referred to as Actual Incurred Losses and Actual Primary Losses.*

- *All claims in excess of the State Per Claim and State Multiple Claim loss limits are reduced. Loss Limits are as follows:*

Effective Date	*Loss Limit (Per Claim)*	*Loss Limit (Multiple claims from a singe accident)*
04/01/2004	*$131,000*	*$262,000*
04/01/2005	*$147,000*	*$294,000*
04/01/2006	*$168,500*	*$337,000*
04/01/2007	*$192,500*	*$385,000*
04/01/2008	*$211,000*	*$422,000*
04/01/2009	*$226,500*	*$453,000*

Payroll Information

- *Payroll is entered by classification code.*
- *Expected Losses are calculated by multiplying the payroll by the corresponding class code Expected Loss Rate (ELR) and then dividing by 100.*
- *Expected Primary Losses are calculated by multiplying the Expected Losses by the corresponding D-ratio.*

Calculation of Experience Modification

After the actual loss and payroll data are used to develop the primary (actual and expected) loss values, they are totaled and put into the final calculation of the experience modification.

(A) Actual Incurred Losses = Total of all Actual Incurred Losses
(B) Actual Primary Losses = Total of all Actual Primary Losses
(C) Expected Losses = Total of all Expected Losses
(D) Expected Primary Losses = Total of all Expected Primary Losses
(E) Actual Excess Losses = (A) – (B)
(F) Expected Excess Losses = (C) – (D)
(G) Weighting Value = Tabular value based on Expected Losses (C)
(H) Ballast Value = Tabular value based on Expected Losses (C)

The formula for calculating the Experience Modification is:

$$\begin{array}{ll} \text{(I) Actual:} & \underline{B + H + (E \times G) + (1 - G) \times F} \\ \text{(J) Expected:} & D + H + (F \times G) + (1 - G) \times F \end{array}$$

$$\text{Experience Modification} = (I) / (J)$$

The experience rating plan formula includes a procedure limit, or cap, the size of an experience modification debit. The cap is a function of Expected Losses (C) and is calculated as follows:

$$\text{Cap on Modification} = 1 + 0.00005\,(C + 2\,C / G)$$

In the formula, the G value is as follows:

Rating Effective Date	*G Value*
04/01/2004	*5.25*
04/01/2005	*5.90*
04/01/2006	*6.75*
04/01/2007	*7.70*
04/01/2008	*8.45*
04/01/2009	*9.05*

Assigned Risk Adjustment Program (ARAP)

ARAP was developed to surcharge assigned risk insureds that have a record of losses greater than expected under the current experience rating plan formula. ARAP applies only to employers that are in the assigned risk plan and subject to experience rating. The ARAP factor is calculated using the same components as the experience rating formula, but the ARAP formula relies more on total losses than primary losses. An ARAP factor is calculated and printed on each experience rating worksheet even though that factor may not apply to the employer.

Instructions

Rating Effective Date

Description:

The rating effective date is the date that the rating becomes effective, sometimes referred to as the anniversary rating date.

For this application, only a rating effective date on or after 4/1/2000 may be used to calculate an experience modification.

Rules:

- *Must be entered as MM/DD/YYYY*
- *Rating Effective Date must be on or after 4/1/2000*
- *Rating Effective Date must be a valid date*

Medical Only – Less than $5000

4-Digit Year

Description:

The policy year that corresponds with the Actual Incurred Losses within each row.

Rules:

- *Must be 4 digits*
- *4-Digit year must be entered if Actual Incurred Losses are entered within the same row*

Actual Incurred Losses

Description:

The total actual incurred loss for each claim.

Enter the whole dollar amount of the medical claim, either by individual claim or a total of medical only claims which are under $5000.

Rules:

- *Whole dollars only (no punctuation allowed)*
- *Actual Incurred Losses must be entered if a 4-Digit Year is entered within the same row*

Medical Only – Greater than or Equal to $5000

4-Digit Year

Description:
The policy year that corresponds with the Actual Incurred Losses within each row.

Rules:
- *Must be 4 digits*
- *4-Digit year must be entered if the Actual Incurred Losses are entered within the same row*

Actual Incurred Losses

Description:
The total Actual Incurred Loss for each claim.
Enter the whole dollar amount of the medical claim. Actual Incurred Losses greater than or equal to $5000 cannot be grouped.

Rules:
- *Whole dollars only (no punctuation allowed)*
- *Actual Incurred Loss must be entered if a 4-Digit Year is entered within the same row*
- *Actual Incurred Loss must be a number greater than or equal to $5000*

Medical and Indemnity – Less than $5000

4-Digit Year

Description:
The policy year that corresponds with the Actual Incurred Losses within each row.

Rules:
- *Must be 4 digits*
- *4-Digit year must be entered if Actual Incurred Losses are entered within the same row*

Actual Incurred Losses

Description:
The total Actual Incurred Loss for each claim.

Enter the whole dollar amount of the claim, either by individual claim or a total of all claims under $5000.

Rules:
- Whole dollars only (no punctuation allowed)
- Actual Incurred Losses must be entered if a 4-Digit Year is entered within the same row

Medical and Indemnity - Greater than or Equal to $5000

4-Digit Year

Description:
The policy year that corresponds with the Actual Incurred Losses within each row.

Rules:
- Must be 4 digits
- 4-Digit year must be entered if Actual Incurred Losses are entered within the same row

Actual Incurred Losses

Description:
The total Actual Incurred Loss for each claim.
Enter the whole dollar amount of the claim. Actual Incurred Losses greater than or equal to $5000 cannot be grouped.
If any of the claims are part of a catastrophe, please refer to the catastrophe section.

Rules:
- Whole dollars only (no punctuation allowed)
- Actual Incurred Loss must be entered if a 4-Digit year is entered within the same row
- Actual Incurred Loss must be a number greater than or equal to $5000

Payroll

Procedure

At least one year, with class code and payroll data, must be entered in order to calculate an experience modification.
Only one 4-digit year, class code and payroll entry may be made per line.
After the year, class code and payroll data have been entered click the "Calculate Payroll" button. The ELR, D-Ratio, Expected Losses and Expected Primary Losses will then be calculated.
Click the "Calculate Experience Modification" button to complete the process and calculate the experience modification.

4-Digit Year

Description:
The policy year that corresponds with the class code and payroll within each row. It is usually the effective date of the policy.

Rules:
- Must be 4 digits

Class Code

Description:
A four-digit classification code that describes the business and its operations.

Rules:
- Code must be a valid North Carolina classification code
- This application does not contemplate A-Rates; please call NCRB for assistance with A-Rated class codes

Payroll Amount

Description:
The amount of payroll generated per classification code.

Rules:
- Enter whole dollar amounts, with no punctuation

Catastrophes

Description

Accidents that involve injuries to two or more persons are limited to the State Multiple Claim loss limit (see the Claim Information chart in the General Overview section), which is twice the State per claim loss limit. The actual primary loss for multiple claim accidents is limited to $10,000, which is twice the normal maximum primary loss value.

Catastrophe with Two Claims

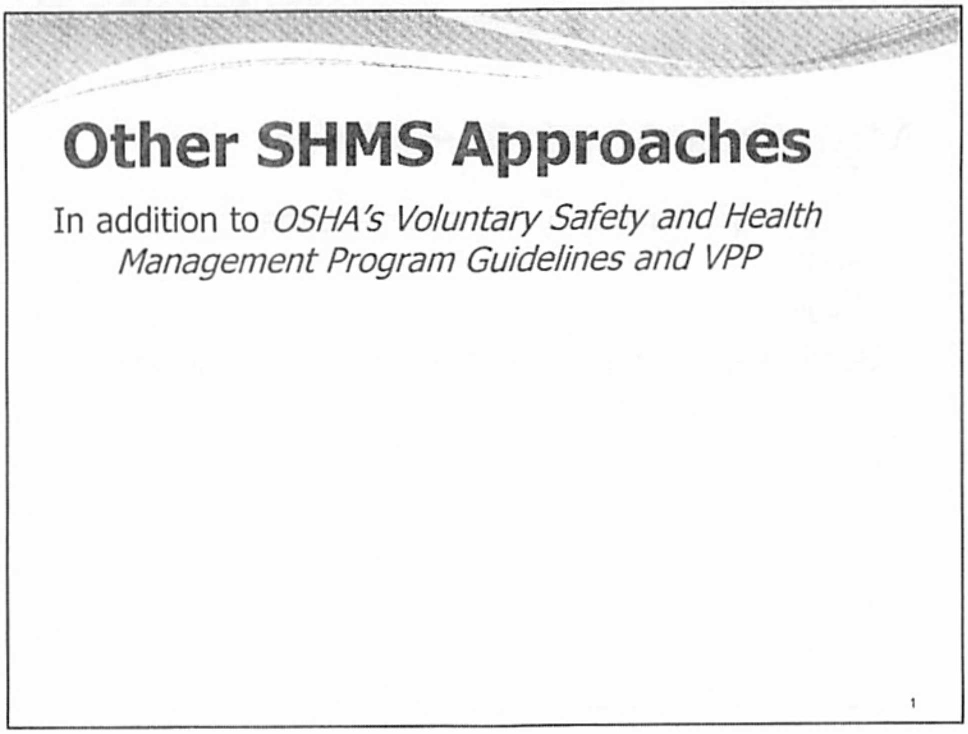
If you are entering only two claims for a single occurrence, enter them as non-catastrophe type claims. No special consideration is necessary.

Total Losses Less Than Loss Limit

If you are entering more than two claims for a single occurrence and the total of all the claims is less than the current State per claim loss limit and the total primary loss value for all of the claims is less than $10,000, enter them as non-catastrophe type claims. No special consideration is necessary.

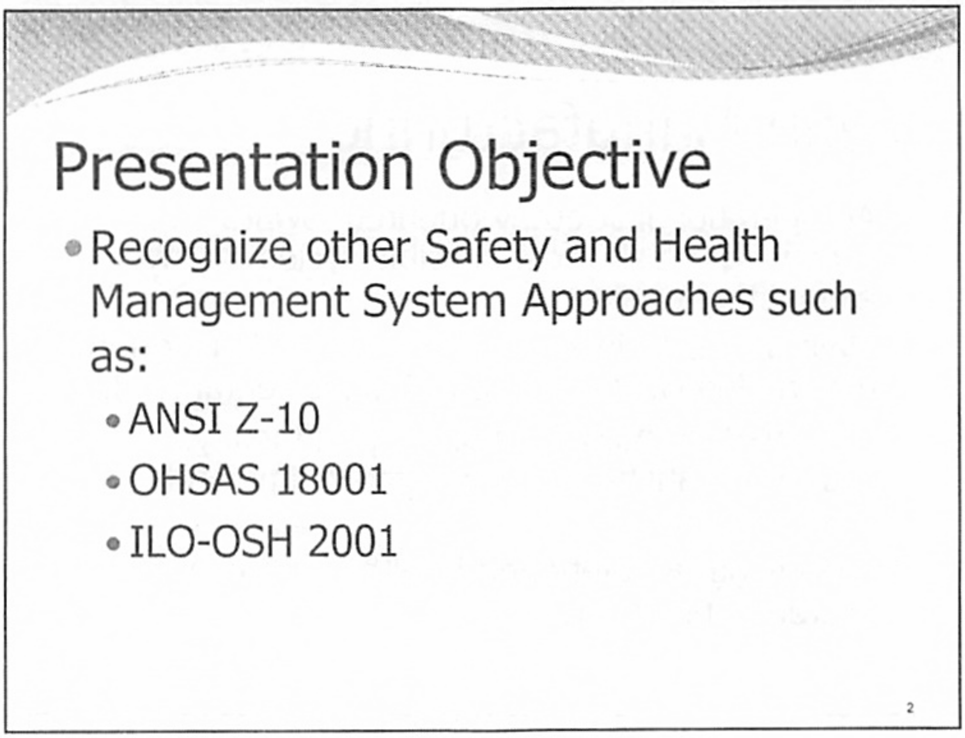
Total Losses Greater Than Loss Limit

If you are entering more than two claims for a single occurrence and the total is over the current State Claim loss limit or the total primary loss value for all of the claims is over $10,000, contact NCRB for assistance.



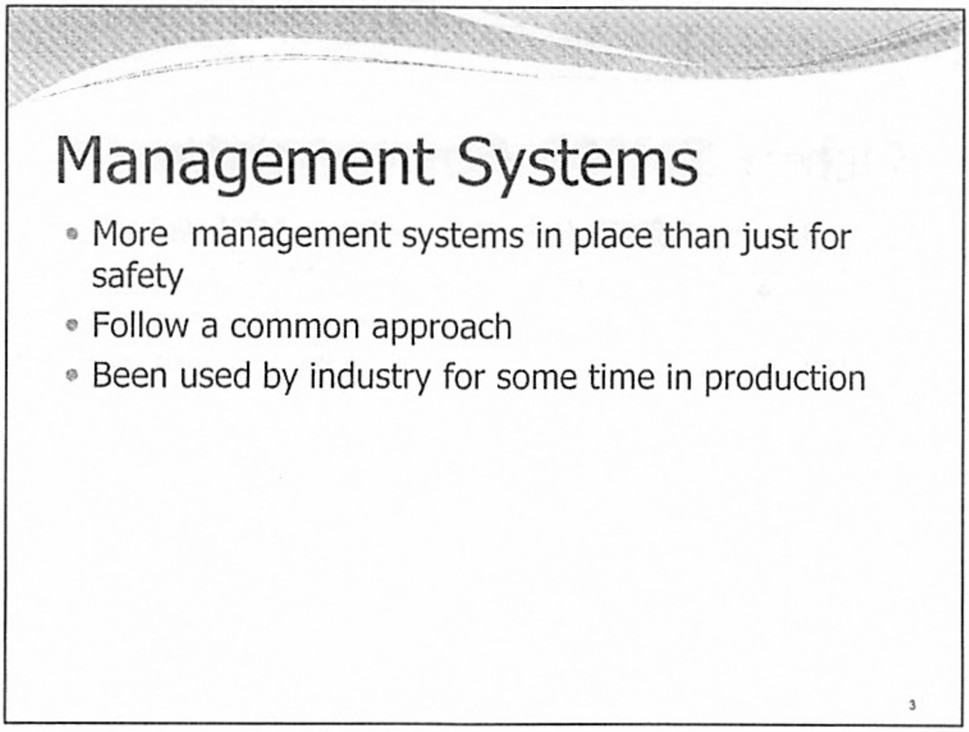
Other SHMS Approaches

In addition to *OSHA's Voluntary Safety and Health Management Program Guidelines and VPP*



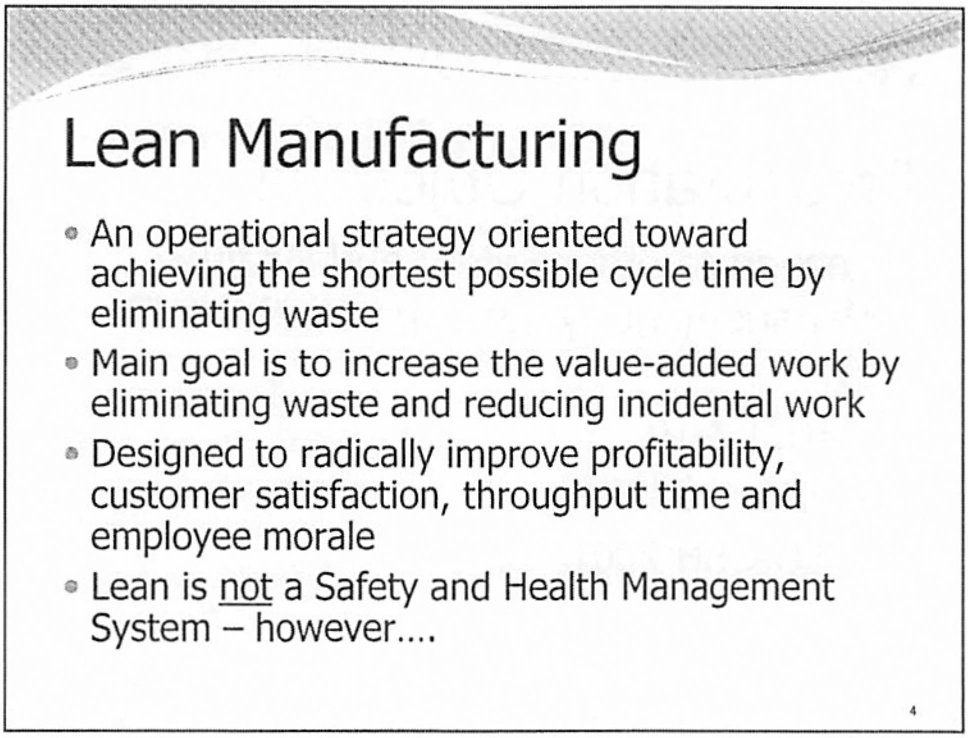
Presentation Objective

- Recognize other Safety and Health Management System Approaches such as:
  - ANSI Z-10
  - OHSAS 18001
  - ILO-OSH 2001



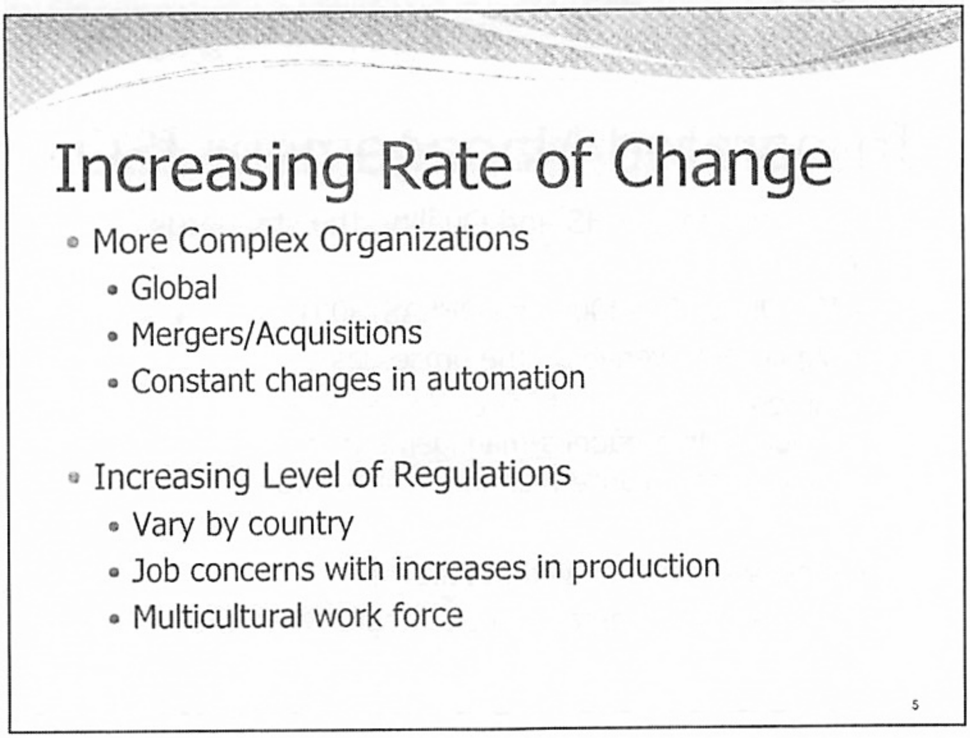
Management Systems

- More management systems in place than just for safety
- Follow a common approach
- Been used by industry for some time in production



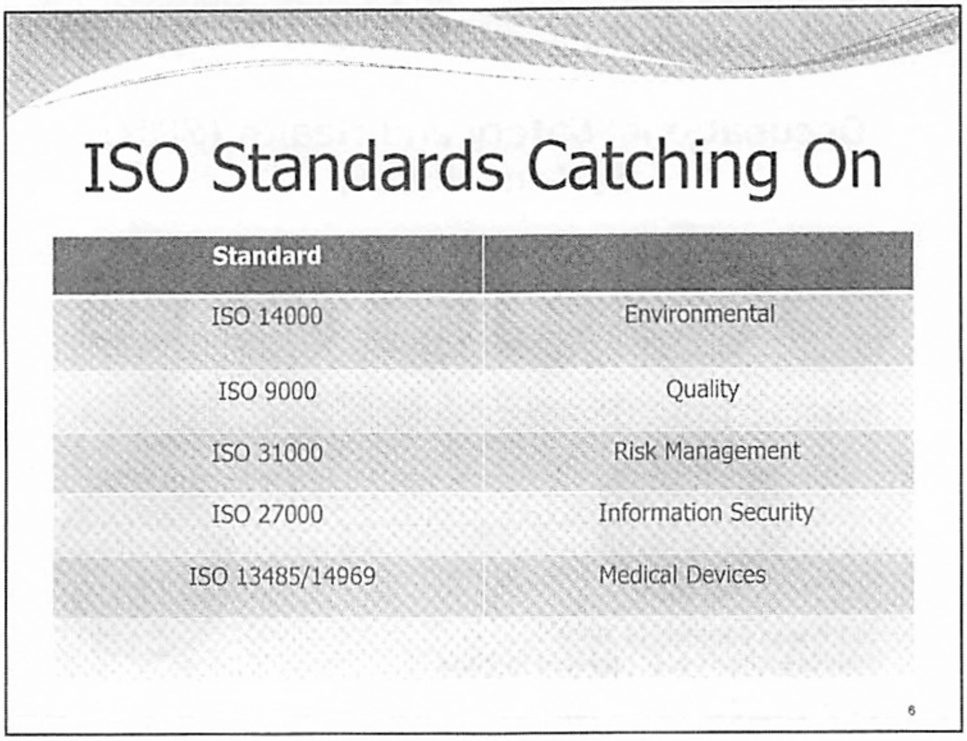
Lean Manufacturing

- An operational strategy oriented toward achieving the shortest possible cycle time by eliminating waste
- Main goal is to increase the value-added work by eliminating waste and reducing incidental work
- Designed to radically improve profitability, customer satisfaction, throughput time and employee morale
- Lean is not a Safety and Health Management System – however….



Increasing Rate of Change

- More Complex Organizations
  - Global
  - Mergers/Acquisitions
  - Constant changes in automation
- Increasing Level of Regulations
  - Vary by country
  - Job concerns with increases in production
  - Multicultural work force



ISO Standards Catching On

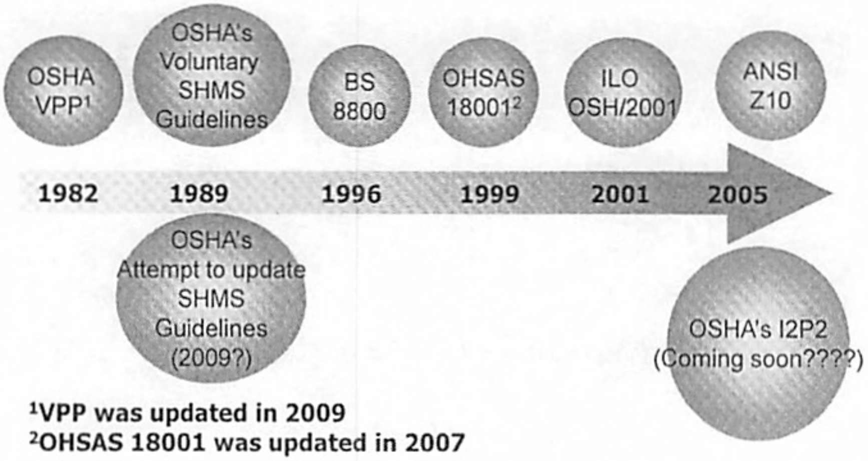
Standard	
ISO 14000	Environmental
ISO 9000	Quality
ISO 31000	Risk Management
ISO 27000	Information Security
ISO 13485/14969	Medical Devices

Integrated Management ISO

- Convergence of EHS and Quality, the standards agree!
  - ISO 9001/ISO14001 and OHSAS18001
  - Significant overlap on the processes
  - All require document control/corrective action/training/audits/management of change/compliance management records

  - Processes used in all three areas!
  - Overlap in processes can be integrated as one

Occupational Safety and Health (S&H) System History



OSHA VPP[1]
1982

OSHA's Voluntary SHMS Guidelines
1989
OSHA's Attempt to update SHMS Guidelines (2009?)

BS 8800
1996

OHSAS 18001[2]
1999

ILO OSH/2001
2001

ANSI Z10
2005
OSHA's I2P2 (Coming soon????)

[1]VPP was updated in 2009
[2]OHSAS 18001 was updated in 2007

The three safety management systems programs that are getting attention and gaining interest:

- Occupational Health and Safety Assessment Series **(OHSAS) 18001: 2007** Occupational Health and Safety Management Systems -Requirements
- **ANSI Z-10 - 2005** American National Standard for Occupational Health and Safety Management Systems
- **ILO-OSH 2001** International Labor Organization, a specialized agency of the UN. Reflects values for the protection of worker safety and health

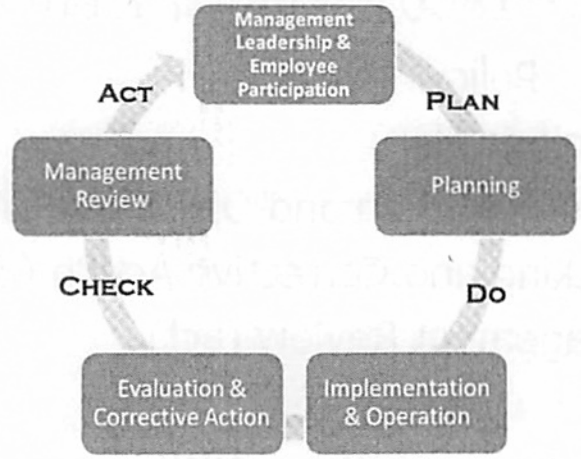
OHSAS 18001 – Major Elements

- OH&S Policy
- Planning (plan)
- Implementation and Operation (do)
- Checking and Corrective Action (check)
- Management Review (act)

OHSAS 18001 - 2007

- An international management system standard developed by the OHSAS Project Group, an international association
- Provides a structure to incorporate health and safety into the business by including health and safety impacts as part of the business process and planning activities
- Establishes a framework to move beyond compliance
- Success depends on commitment from all levels and functions of the organization, and especially from top management
- Compatible with the ISO 9001 and ISO 14001 series of standards
- Requires a Certification Process, which can be self declared, but then must be registered through an auditor

ANSI Z10 – Major Elements



Management Leadership & Employee Participation

PLAN

Planning

DO

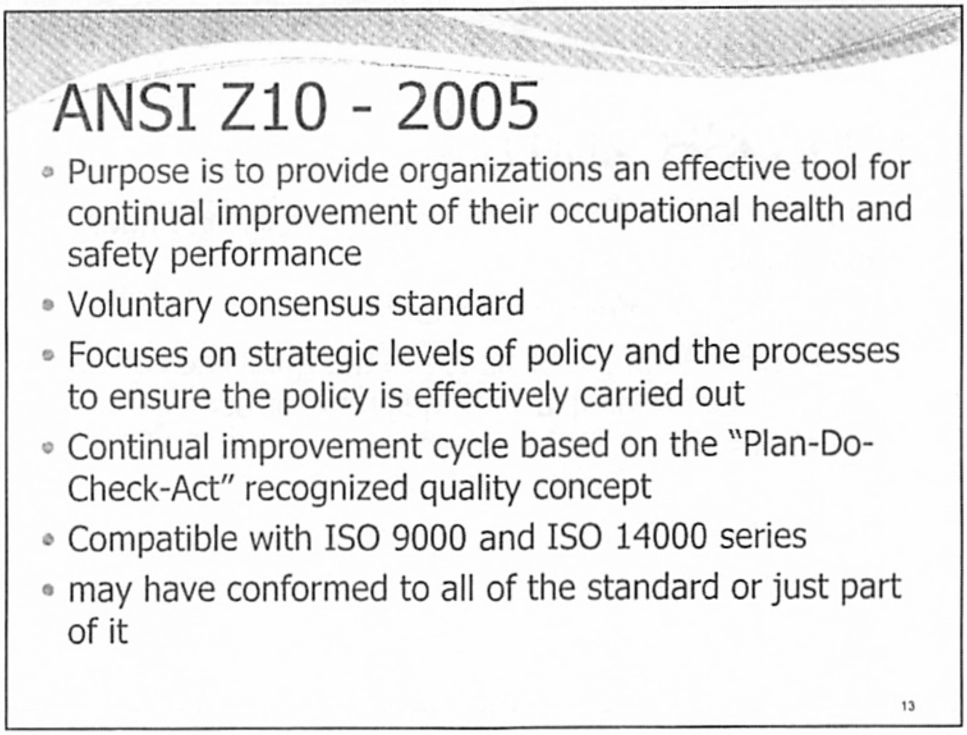
Implementation & Operation

Evaluation & Corrective Action

CHECK

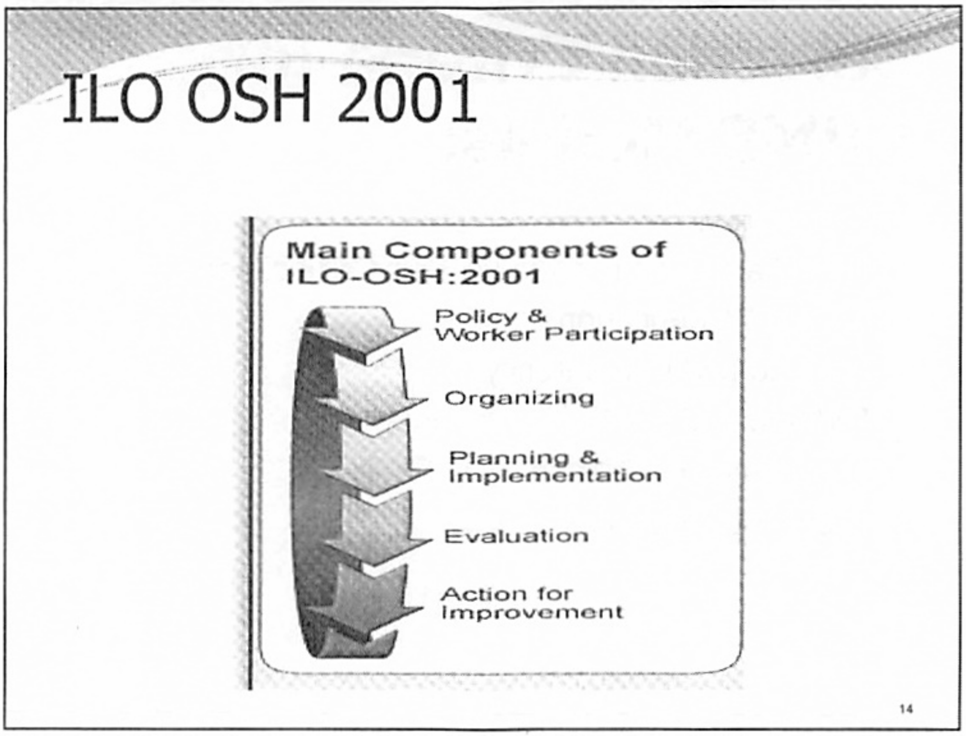
Management Review

ACT



ANSI Z10 - 2005

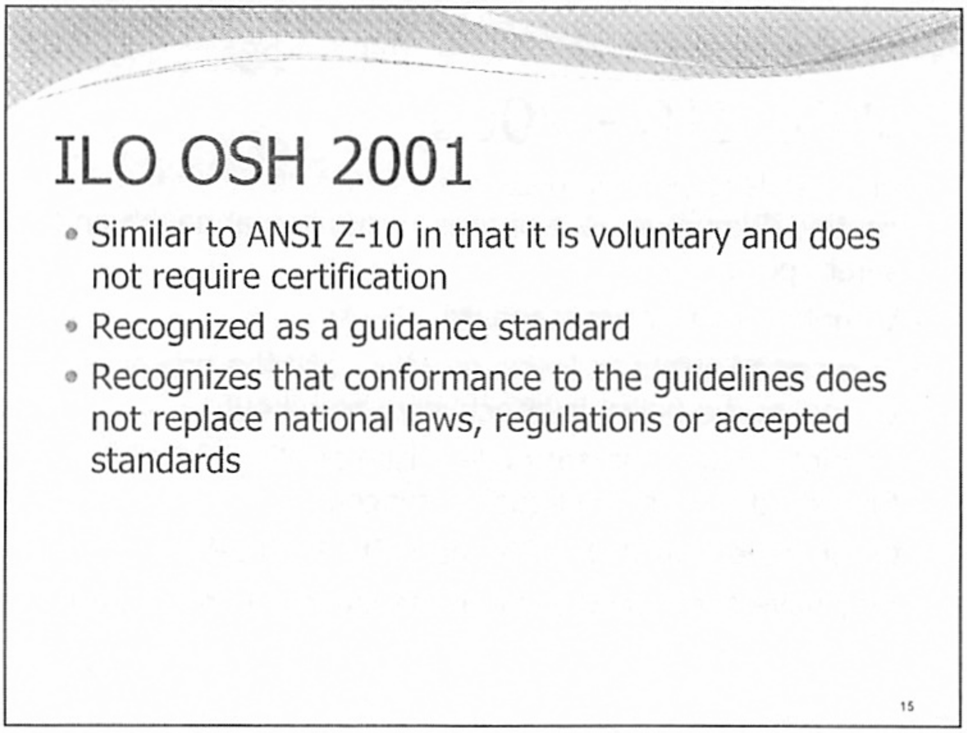
- Purpose is to provide organizations an effective tool for continual improvement of their occupational health and safety performance
- Voluntary consensus standard
- Focuses on strategic levels of policy and the processes to ensure the policy is effectively carried out
- Continual improvement cycle based on the "Plan-Do-Check-Act" recognized quality concept
- Compatible with ISO 9000 and ISO 14000 series
- may have conformed to all of the standard or just part of it



ILO OSH 2001

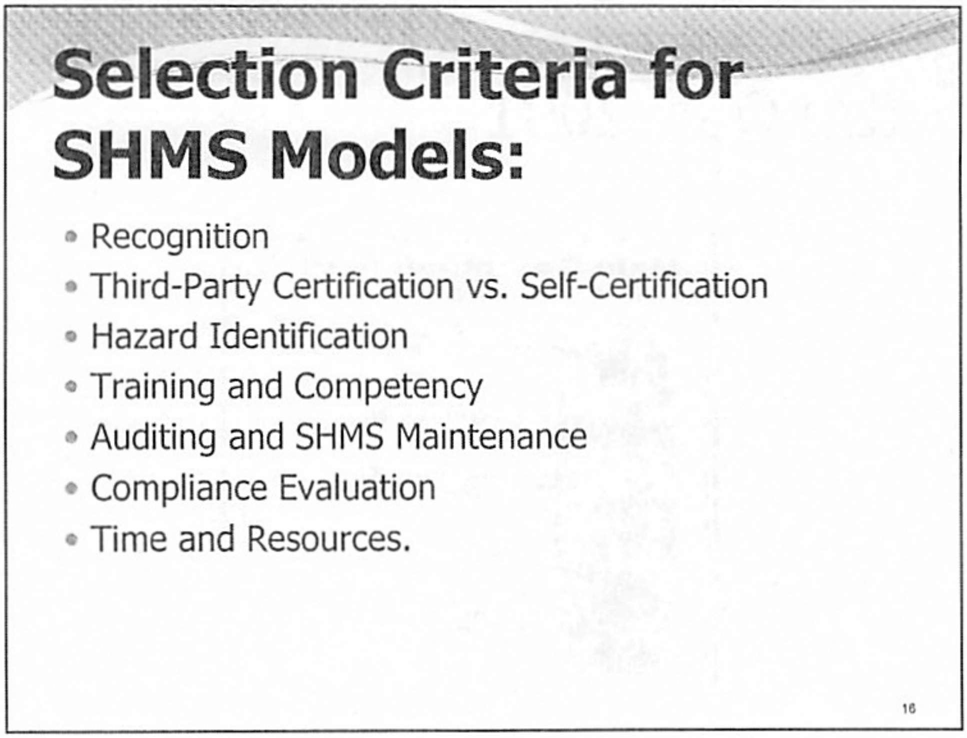
Main Components of ILO-OSH:2001

Policy &
Worker Participation
Organizing
Planning &
Implementation
Evaluation
Action for
Improvement



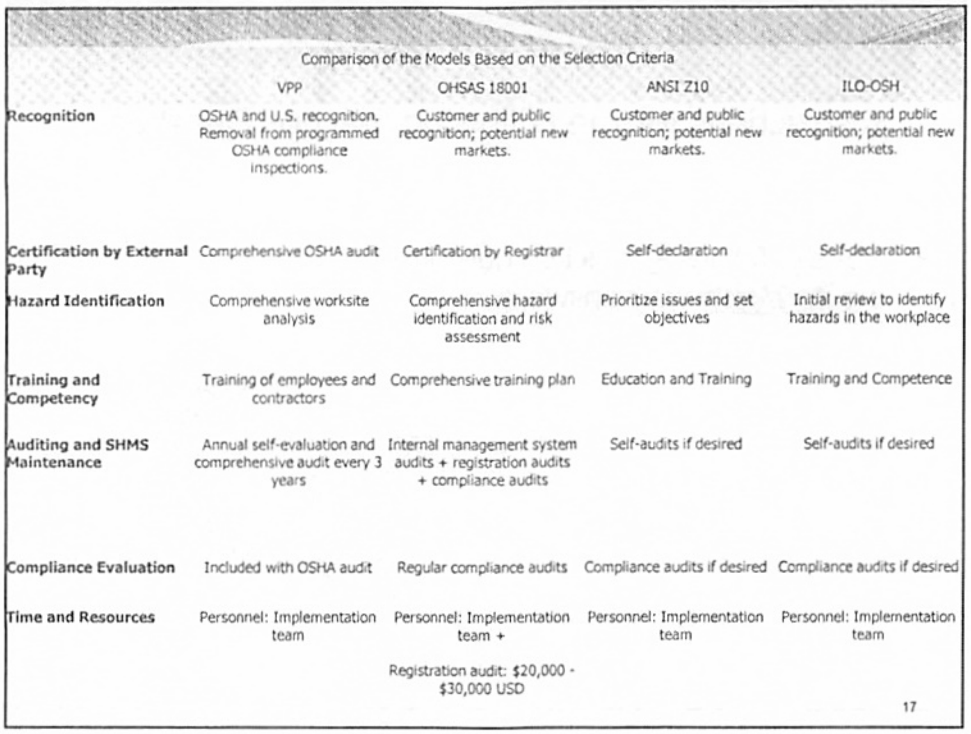
ILO OSH 2001

- Similar to ANSI Z-10 in that it is voluntary and does not require certification
- Recognized as a guidance standard
- Recognizes that conformance to the guidelines does not replace national laws, regulations or accepted standards



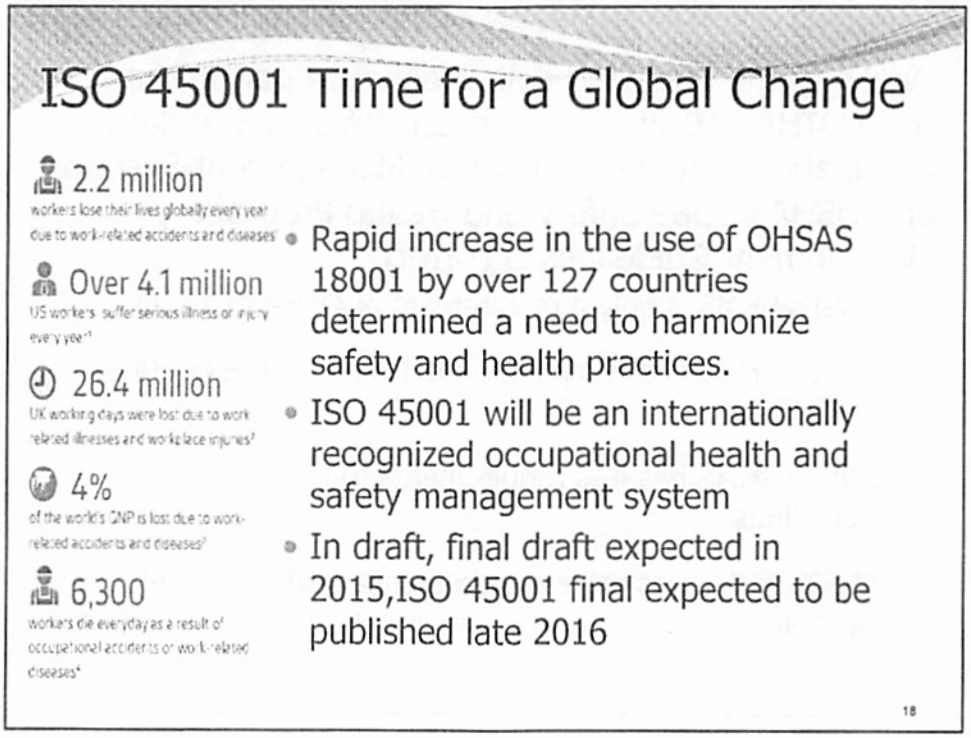
Selection Criteria for SHMS Models:

- Recognition
- Third-Party Certification vs. Self-Certification
- Hazard Identification
- Training and Competency
- Auditing and SHMS Maintenance
- Compliance Evaluation
- Time and Resources.



Comparison of the Models Based on the Selection Criteria

	VPP	OHSAS 18001	ANSI Z10	ILO-OSH
Recognition	OSHA and U.S. recognition. Removal from programmed OSHA compliance inspections.	Customer and public recognition; potential new markets.	Customer and public recognition; potential new markets.	Customer and public recognition; potential new markets.
Certification by External Party	Comprehensive OSHA audit	Certification by Registrar	Self-declaration	Self-declaration
Hazard Identification	Comprehensive worksite analysis	Comprehensive hazard identification and risk assessment	Prioritize issues and set objectives	Initial review to identify hazards in the workplace
Training and Competency	Training of employees and contractors	Comprehensive training plan	Education and Training	Training and Competence
Auditing and SHMS Maintenance	Annual self-evaluation and comprehensive audit every 3 years	Internal management system audits + registration audits + compliance audits	Self-audits if desired	Self-audits if desired
Compliance Evaluation	Included with OSHA audit	Regular compliance audits	Compliance audits if desired	Compliance audits if desired
Time and Resources	Personnel: Implementation team	Personnel: Implementation team + Registration audit: $20,000 - $30,000 USD	Personnel: Implementation team	Personnel: Implementation team



ISO 45001 Time for a Global Change

2.2 million
workers lose their lives globally every year due to work-related accidents and diseases[1]

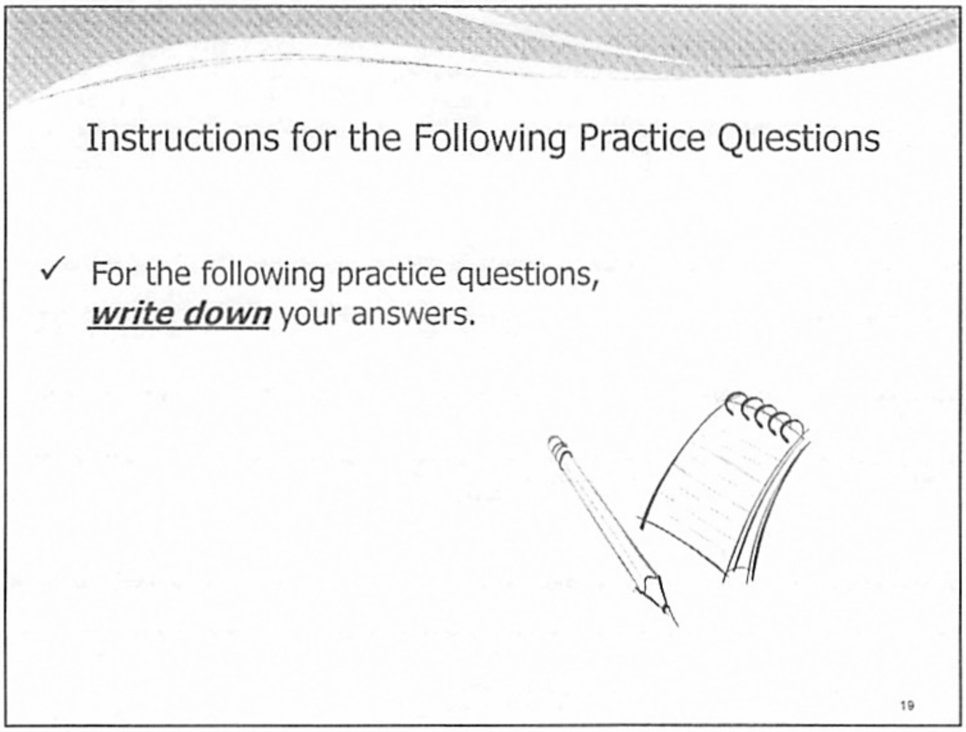
Over 4.1 million
US workers suffer serious illness or injury every year[1]

26.4 million
UK working days were lost due to work related illnesses and workplace injuries[2]

4%
of the world's GNP is lost due to work-related accidents and diseases[3]

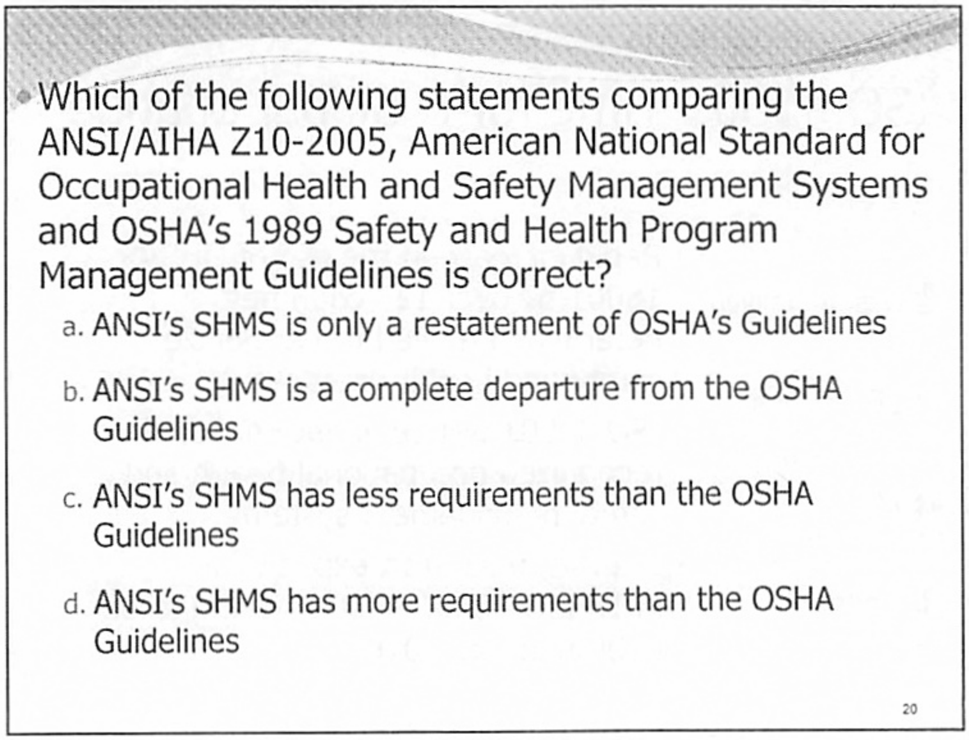
6,300
workers die everyday as a result of occupational accidents or work-related diseases[4]

- Rapid increase in the use of OHSAS 18001 by over 127 countries determined a need to harmonize safety and health practices.
- ISO 45001 will be an internationally recognized occupational health and safety management system
- In draft, final draft expected in 2015,ISO 45001 final expected to be published late 2016



Instructions for the Following Practice Questions

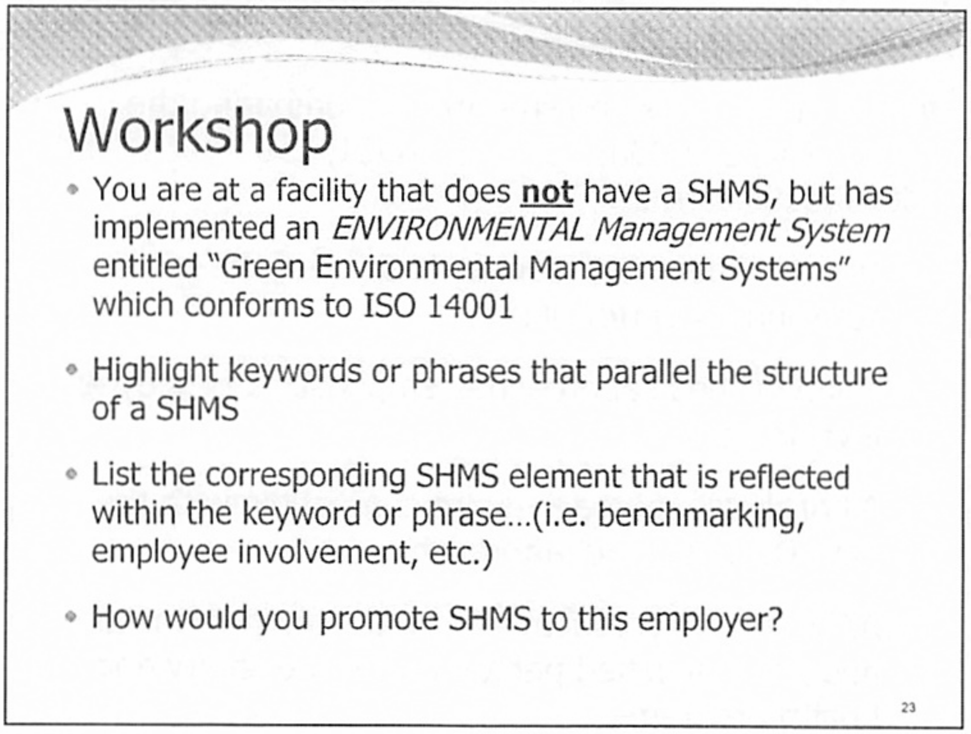
✓ For the following practice questions, ***write down*** your answers.



- Which of the following statements comparing the ANSI/AIHA Z10-2005, American National Standard for Occupational Health and Safety Management Systems and OSHA's 1989 Safety and Health Program Management Guidelines is correct?
  - a. ANSI's SHMS is only a restatement of OSHA's Guidelines
  - b. ANSI's SHMS is a complete departure from the OSHA Guidelines
  - c. ANSI's SHMS has less requirements than the OSHA Guidelines
  - d. ANSI's SHMS has more requirements than the OSHA Guidelines

- Which of the following statements comparing the ANSI/AIHA Z10-2005, OHSAS 18001, ISO 14001, and ISO 9001 is correct?
  a. None of these approaches is state-of-the-art focusing on performance
  b. None of these approaches emphasizes employee involvement
  c. All of these approaches are compatible with the Plan-Do-Check-Act approach
  d. All of these approaches require management to appoint a qualified person to run the safety and health program

- Which of the following are **safety and health management system** approaches?
  a. OSHA 1989 Guidelines, ISO 14001, and ANSI Z-10
  b. OSHA 1989 Guidelines, OHSAS 18001, and ANSI Z-10
  c. OHSAS 18001, ANSI Z-10, and Lean Manufacturing
  d. VPP, ISO 14001, and ILO-OSH 2001



Workshop

- You are at a facility that does **not** have a SHMS, but has implemented an *ENVIRONMENTAL Management System* entitled "Green Environmental Management Systems" which conforms to ISO 14001
- Highlight keywords or phrases that parallel the structure of a SHMS
- List the corresponding SHMS element that is reflected within the keyword or phrase...(i.e. benchmarking, employee involvement, etc.)
- How would you promote SHMS to this employer?

Comparison of the Models Based on the Selection Criteria

	VPP	OHSAS 18001	ANSI Z10	ILO-OSH
Recognition	OSHA and U.S. recognition. Removal from programmed OSHA compliance inspections.	Customer and public recognition; potential new markets.	Customer and public recognition; potential new markets.	Customer and public recognition; potential new markets.
Certification by External Party	Comprehensive OSHA audit	Certification by Registrar	Self-declaration	Self-declaration
Hazard Identification	Comprehensive worksite analysis	Comprehensive hazard identification and risk assessment	Prioritize issues and set objectives	Initial review to identify hazards in the workplace
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Auditing and SHMS Maintenance	Annual self-evaluation and comprehensive audit every 3 years	Internal management system audits + registration audits + compliance audits	Self-audits if desired	Self-audits if desired
Compliance Evaluation	Included with OSHA audit	Regular compliance audits	Compliance audits if desired	Compliance audits if desired
Time and Resources	Personnel: Implementation team	Personnel: Implementation team + Registration audit: $20,000 - $30,000 USD	Personnel: Implementation team	Personnel: Implementation team

GEMS conforms to ISO 14001[Environmental management systems -- Requirements with guidance for use]. Although this is not a Safety and Health Management System, it may have similar elements.

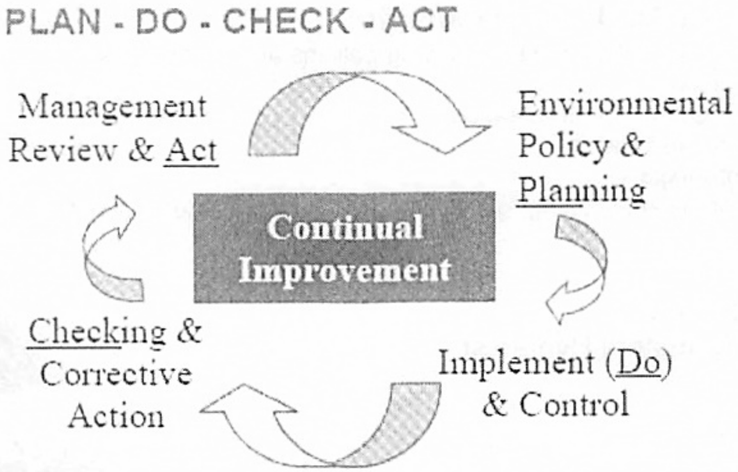
Green Environmental Management Systems
All-Employee Memo

What is GEMS?

GEMS (Green Environmental Management Systems) is a plan designed to combine healthy environmental practices into the overall management of the Medical Center. The GEMS program was required by presidential Executive Order 13148. The goal of GEMS is to continually improve the protection of our environment.

GEMS and JCAHO

GEMS follows the Plan-Do-Check-Act model, making it easy to fit with the JCAHO (Joint Commission) Environment of Care programs at our Medical Center. In fact, many of the requirements for GEMS are already in place and being tracked by our Safety Committee.



PLAN The planning phase included the creation of an environmental policy: Medical Center Memorandum No. 2005-100, Green Environmental Management System. All employees of the medical center are responsible for understanding and carrying out their roles and responsibilities under the GEMS Policy. A GEMS Committee was created to coordinate and oversee the implementation of GEMS. The GEMS Committee evaluated activities (aspects) at the medical center that could have a significant impact on the environment. Some significant aspects found at our medical center include hazardous waste disposal, potential for chemical spills, energy consumption, and use of paper. These activities may have an impact on the environment due to the potential for contamination of the air, water, or soil, and by use of natural resources such as fuels, electricity, water, and paper products. Based on these risks to the environment, the GEMS Committee continues to develop controls (policies and procedures), and has set environmental goals with a plan for achieving them. Non-compliance with established controls may result in environmental contamination, wasteful use of natural resources, endangerment to human health and wildlife, increased costs due to wasteful spending, or monetary fines from violating laws of the Environmental Protection Agency (EPA).

DO The GEMS Committee coordinates the activities of the GEMS program. One of those activities is to conduct training on GEMS, such as this informational article. The Committee will also draft new policies and procedures, keeping staff informed of changes that impact their work.

CHECK The GEMS Committee will continue to monitor and measure our progress with GEMS activities. Periodic evaluations of GEMS, along with environmental audits and involvement from all employees, will guide us in taking additional preventive and corrective actions.

ACT An annual evaluation of the effectiveness of the GEMS Program, with recommendations for continual improvement, is submitted for approval to the Medical Center Director.

GEMS conforms to ISO 14001[Environmental management systems -- Requirements with guidance for use]. Although this is not a Safety and Health Management System, it may have similar elements.

What does GEMS mean to my job?

All of us can impact the environment through our work practices. Do you…

- Use paper, computers, batteries?
- Use, dispose, and/or store solvents?
- Repair/operate motor vehicles?
- Work with asbestos?
- Work with ozone depleting substances?
- Buy chemicals, medical or other supplies?
- Dispose of hazardous, radiological waste, or solid waste?
- Use large amounts of electricity or water?
- Use/dispose of fluorescent light bulbs?
- Use, dispose, and/or store paint?
- Manage construction projects?
- Use aerosol sprays?
- Operate a boiler?
- Store waste?

Your job activities could impact the environment by…

- Causing a spill or release of hazardous chemicals that could pollute the air, soil, or water
- Causing incorrect storage or disposal of waste that could pollute the soil and water
- Not recycling when possible, thereby increasing landfill waste that can pollute the soil and water

We can support GEMS by working to…

- Maintain regulatory compliance by following policies and procedures
- Implement controls
- Prevent unplanned spills and releases
- Conserve energy and water
- Use recycled products
- Prevent pollution by substituting “green” (environmentally safe) products

GEMS Coordinator:

U. C. Green, Industrial Hygienist

Resources:

www.osha.gov

Other SHMS Standards and Guidelines

OSHA's Voluntary Programs

Created in 1982, OSHA's Voluntary Protection Programs (VPPs) recognize and partner with businesses and worksites that demonstrate excellence in occupational safety and health. To qualify for one of the VPPs, applicants must have in place an effective SHMS that meets rigorous performance-based criteria. OSHA verifies qualifications through a comprehensive on-site review process. Using one set of flexible, performance-based criteria, the VPP process emphasizes management accountability for employee safety and health, continual identification and elimination of hazards, and active involvement of employees in their own protection. These criteria work for the full range of industries. OSHA's on-site consultation, Safety and Health Achievement Recognition Program (SHARP) recognizes small employers with effective safety and health programs

For more information:
http://www.osha.gov/dcsp/vpp/index.html
http://www.osha.gov/dcsp/smallbusiness/sharp.html

International Labour Organization Guidelines on Occupational Safety and Health Management Systems (ILO-OSH 2001)

The International Labor Organization (ILO), a United Nations agency that brings together governments, employers, and workers of its member states, has developed voluntary guidelines on safety and health management systems. The guidelines are designed as an "instrument for the development of a sustainable safety culture within the enterprise and beyond." The key elements of the guidelines are built on the concept of continuous improvement.

For more information:
http://www.ilo.org/public/english/protection/safework/cops/english/download/e000013.pdf

ANSI/AIHA Z10-2005, Occupational Health and Safety Management Systems

This voluntary consensus standard was published by the American Industrial Hygiene Association (AIHA) following American National Standards Institute (ANSI) requirements. It provides management systems requirements and guidelines for improving occupational health and safety. Experts from labor, government, professional organizations, and industry formulated the standard after extensive examination of current national and international standards, guidelines, and practices.

For more information:
http://webstore.ansi.org/RecordDetail.aspx?sku=ANSI%2FAIHA+Z10-2005

Other SHMS Standards and Guidelines

Occupational Health and Safety Management Systems Specification—British Standard OHSAS 18001:2007

This standard specifies requirements for an occupational health and safety management system, to enable an organization to control its risks and improve its performance. The Occupational Health and Safety Assessment Series (OHSAS) Project Group, an international association of government agencies, private industries, and consulting organizations, first published the standard in 1999. Since then, there have been 16,000 certifications to the standard in over 80 countries. The 2007 edition reflects lessons learned from users and increases its compatibility with other international SHMS standards and guidelines. A companion document, OHSAS 18002:2000, serves as a guide.

For more information:
http://www.osha-bs8800-ohsas-18001-health-and-safety.com/ohsas-18001.htm

Safety and Health Management Systems Comparative Review

(ANSI Z10 – OHSAS 18001 – OSHA VPP* – OSHA 1989 Guidelines)

Purpose

This memorandum provides a comparison of four major occupational safety and health management system (SHMS) reference standards and guidelines that have emerged in the past several decades. The purpose of this comparison is to help OSHA understand the key *similarities* and *differences* that exist across these documents as the Agency seeks to update its 1989 Safety and Health Program Management Guidelines (Federal Register 54:3904-3916). This comparison will serve to inform ongoing data gathering activities intended to identify up-to-date documentation of SHMS applications, strengths, weaknesses, benefits, limitations, and case studies.

Documents Reviewed

In preparing this memorandum, ERG reviewed and compared the following documents, each of which outlines voluntary standards and guidelines for implementing a SHMS:

1. **ANSI/AIHA Z10:2005**. Occupational Health and Safety Management Systems. Published by the American Industrial Hygiene Association.

   ANSI Z10 is an approved American National Standard published by the American Industrial Hygiene Association (AIHA) in 2005. The American National Standards Institute, Inc. (ANSI) is a nonprofit umbrella group that facilitates the development of U.S. standards by accrediting the procedures used by standard setting organizations. Following ANSI requirements, AIHA served as the secretariat for development of ANSI Z10. The ANSI Z10 committee included representatives from labor and industry groups, government agencies, academia, and individual firms. To encourage compatibility, ANSI Z10 uses the management systems principles outlined in the ISO 14000 series, OHSAS 18000 series, ILO guidelines, and other SHMSs. Guidance for implementing ANSI Z10 is provided alongside the text of the standard and in the document appendices.

2. **OHSAS 18001:1999.** Occupational Health and Safety Assessment Series. Occupational Health and Safety Management Systems – Specifications; **OHSAS 18001:2007**. Occupational Health and Safety Assessment Series. Occupational Health and Safety Management Systems – Requirements. Published by the British Standards Institute.

**VPP Program Requirements have been updated since this comparison was made. References in this document are made to the 2000 Federal Register, not the 2009.*

The Occupational Health and Safety Assessment Series (OHSAS) Project Group, which is an international association of government agencies, private industries, and consulting organizations, developed these standards in "response to customer demand for a recognizable occupational health and safety management system standard against which their management systems can be assessed and certified." The 2007 Standard is a revised, second edition of the 1999 Standard. Updates to the second edition not only provide further clarification of concepts discussed in the first addition, but also increase compatibility with International Organization for Standardization (ISO) 14001:2004, ISO 9001:2000, International Labor Organization (ILO) guidelines, and other occupational SHMSs. Although 2007 Standard supersedes the 1999 Standard, organizations that received certification under the 1999 Standard have until 2009 to update their programs to meet the 2007 Standard criteria and retain certification. A companion document, OHSAS 18002:2000, serves as a guide to implementing OHSAS 18001.

3. **OSHA VPP.** Revisions to the Voluntary Protection Programs to Provide Safe and Healthful Working Conditions. Federal Register 65:45649-45663, 7/24/00; OSHA Directive CSP 03-01-002, Voluntary Protection Programs; Policies and Procedures Manual, 03/25/2003. Chapter 3: Requirements for Star, Merit, Resident Contractor, Construction Industry, and Federal Agency Worksites.

   OSHA's Voluntary Protection Program (VPP), which was formally announced in 1982, is a voluntary partnership program that provides recognition and support to organizations that implement a SHMS that conforms to the VPP requirements and who also meet other performance criteria established by OSHA. Various levels of recognition are available under the VPP, depending on how fully an organization satisfies the basic and advanced VPP criteria. Directive CSP 03-01-002 outlines the framework for administering the VPP. Chapter 3 provides the requirements for Star and Merit programs, which are ratings of a company's compliance with OSHA regulations and operation of a SHMS.

4. **OSHA 1989 Guideline.** OSHA Voluntary Guidelines, Safety and Health Program Management Guidelines. Federal Register 54:3904-3916, 1/26/1989.

   Based on the success of the VPP and additional positive experience with other safety and health initiatives, OSHA decided to broaden its available information about SHMSs. OSHA published this guideline prior to the OHSAS, ILO, and ANSI standards, and therefore, based the guideline on program elements found in successful SHMSs and consultation with safety and health professionals and consultants.

ILO has also published a guideline addressing SHMS (ILO-OSH 2001, Guidelines on Occupational Safety and Health Management Systems. Published by the United Nations' International Labor Office in Geneva, Switzerland). ERG did not review this document in detail or include it in the comparison presented here because Annex B to OHSAS 18001 states that no areas of significant difference between OHSAS 18001 and ILO 2001 have been identified.

Standard and Guideline Elements

ERG reviewed the standards and guidelines to evaluate their basic elements. Although the standards and guidelines have many elements in common, the element focus may differ from one standard or guideline to another. A brief synopsis of the similarities and differences of each are provided in the following section. For the OHSAS 18000 series documents, ERG primarily reviewed and summarized the 2007 Standard and OHSAS 18002. For the OSHA VPP, ERG primarily reviewed the guideline revisions from the 2000 Federal Register and the 2003 Directive.

Table 1 lists the basic elements found in the standards and guidelines reviewed. Each of the standards and guidelines includes most, but not all, of the listed elements. Some of standards and guidelines lack unique sections covering elements, but address these elements nonetheless. Table 2, which is attached, provides a detailed description of these elements, including references to where the element is described in each standard and guideline.

Table 1. Standard and Guideline Elements

- Scope
- Purpose
- Applicability
- Management Leadership
- Occupational Safety and Health Policy
- Management Responsibility and Authority*
- Employee Participation*
- Planning*
- Ongoing Review
- Assessment and Prioritization
- Legal and Other Requirements
- Establishing Objectives*
- Implementation Plans and Allocation of Resources*
- Incorporation of Existing Systems*
- Management of Change
- Procurement
- Contractors*
- Emergency Preparedness
- Education and Training*
- Communication
- Documentation and Document Control
- Operational Controls
- Monitoring and Measuring*
- Incident Investigation*
- Audits*
- Corrective and Preventative Action*
- Disciplinary Action*
- Feedback to the Planning Process*
- Management Review Process
- Management Review Outcomes and Follow-up*

* elements that differ across the standards and guidelines are highlighted and discussed further below

Highlights of Key Standard and Guideline Similarities and Differences

As part of this review, ERG compared the elements to identify areas of similarity and difference between the standards and guidelines. The following briefly describes key elements and the results of this comparison.

Scope, Purpose, Applicability

Each standard and guideline provides a framework for organizations who wish to adopt a management systems approach to managing their safety and health issues and improving their safety and health performance. All follow the basic structure of the familiar "Plan-Do-Check-Act" cycle that is common across many types of management systems. Each is applicable to organizations of all sizes, public or private.

Occupational Safety and Health Policy

All of the standards and guidelines require the organization's management to establish a safety and health policy. ANSI Z10 and OHSAS 18001 also require that the policy include commitments to compliance and continual improvement. All require that the policy be communicated to employees. OHSAS 18001 requires that the policy also be available to other interested parties.

Management Leadership, Management Responsibility and Authority

All require management to provide leadership, define personnel roles and responsibilities, and communicate the SHMS employees, though one notable difference exists. ANSI Z10 and OHSAS 18001 assign ultimate responsibility for the SHMS to managers, whereas under the OSHA VPP and OSHA 1989 Guidelines top management hold managers, supervisors, and employees accountable for meeting occupational safety and health goals.

Employee Participation

Employee participation is required by each standard and guidelines. The OSHA 1989 Guidelines only briefly refer to a need to encourage employee involvement in the structure and operation of the SHMS. The other three standards and guidelines provide more specific details about the components of employee involvement (e.g., including employees in developing and reviewing policies, ensuring representation on safety and health matters, and removing obstacles to participation). The OSHA VPP requires that employees have at least three active and meaningful ways to participate in occupational safety and health problem identification and resolution. Both ANSI Z10 and OHSAS 1800 include contractors in the participation component of a SHMS.

Planning

ANSI Z10 and OHSAS 18001 define planning as the ongoing process to identify hazards, assess risks, and implement controls. ANSI Z10 outlines specific considerations for planning, such as programs typically outside of SHMSs (e.g., procurement), available resources, and other relevant activities, which may include contractor or non-routine activities. OHSAS 18001 also outlines planning considerations, such as routine and non-routine activities, human behaviors and human factors, infrastructure and equipment, and SHMS changes. The supporting guidance includes employee feedback as an important consideration in planning. Both the OSHA VPP and the OSHA 1989 Guidelines lack a unique section describing planning, but both mention planning considerations throughout their text, as noted in Table 2. In the OSHA VPP and the OSHA 1989 Guidelines, planning includes the identification of hazards through comprehensive baseline surveys and analyses of routine jobs, worksites, and change.

Ongoing Review

Each of the four standards and guidelines includes provisions for ongoing review. ANSI Z10 requires review of information gathered during SHMS activities, but does set a specific review time period (e.g. annually). OHSAS 18002 requires review of the hazard identification, risk assessment, and risk control at time periods set in the occupational safety and health policy document or prior to implementation of any changes. The OSHA VPP requires routine site inspections as outlined in the worksite analysis documentation. The OSHA 1989 Guidelines requires a review of program operations at least annually.

Assessment and Prioritization

All of the standards and guidelines require organizations to assess and prioritize occupational safety and health issues through hazard identification, risk assessment, and/or workplace analysis. ANSI Z10, OHSAS 18001, and the OSHA VPP provide details regarding the content, scope, and/or objectives of these evaluations. The OSHA 1989 Guidelines, however, only briefly outline the requirements for identifying hazards.

Legal and Other Requirements

ANSI Z10 and OHSAS 18001 require that organizations comply with applicable laws and regulations. The OSHA VPP and the OSHA 1989 Guidelines focus this requirement on OSHA standards.

Establishing Objectives

Each of the standards and guidelines require management to establish occupational safety and health objectives. All but the OSHA 1989 Guidelines, which only briefly describes requirements for SHMS objectives, provide specific information about the content and focus of the objectives (e.g., focus on system improvements, consider financial aspects). ANSI Z10 and OHSAS 18001 indicate that objectives should be reviewed regularly. OHSAS 18001 indicates that objectives should also be measurable where practical.

Implementation Plans and Allocation of Resources

Only ANSI Z10 explicitly refers to implementation plans. ANSI Z10 implementation plans define resources, responsibilities, timeframes, steps, and progress measures for the SHMS. OHSAS 18001 refers to various documents and plans required to implement a SHMS, such as hazard assessment and risk assessment methodologies, objectives and policies, timeframes, program reviews, and designated responsibilities. The OSHA VPP requires documentation of SHMS components and assigns management with the responsibility for ensure adequate resource allocation for the SHMS. The OSHA 1989 Guidelines only state that management should provide adequate authority and resources to responsible parties.

Incorporation of Existing Systems

Both ANSI Z10 and OHSAS 18001 indicate that existing safety and health programs and procedures should be integrated into the SHMS. OHSAS 18001 indicates that existing documentation does not need to be replaced if this documentation adequately describes the safety and health processes and systems. Neither the OSHA VPP nor the OSHA 1989 Guidelines mention existing systems.

Management of Change, Procurement

Each of the standards and guidelines requires review of proposed changes (e.g., new processes, equipment, or materials) and potential impacts to occupational safety and health and the organization's SHMS prior to implementing the change. Changes to facilities, processes, materials, and equipment would require an occupational safety and health review. The level of detail describing the review requires varies across the standards and guidelines, with ANSI Z10 providing the greatest amount of detail and the OSHA 1989 Guidelines the least.

Contractors

ANSI Z10, OHSAS 18001, and the OSHA VPP all include provisions for the safety and health of contractors. ANSI Z10 defines contractors as *plant* contractors (security, maintenance, landscaping) and *organizational* contractors (consultants, administrative). A SHMS following ANSI Z10 must control safety and health risk to the organization's workers from contractor activities and to contractors from the organization's activities. OHSAS 18001 refers to contractors, visitors, and other interested parties and requires consideration of contractor activities in the SHMS. Throughout OHSAS 18001 and 18002, the text refers to the applicability of a requirement to contractors. In addition to requiring a SHMS that applies to contractors, the OSHA VPP requires that organization address occupational safety and health concerns during contractor selection and include provision for removing a contractor for occupational safety and health violations. The OSHA 1989 Guidelines do not include provisions for contractors.

Emergency Preparedness

All four standards and guidelines require emergency plans. These plans must be periodically tested, with the OSHA VPP requiring annual testing. ANSI Z10 indicates that emergency preparedness plans should focus on prevention. Only ANSI Z10 and the OSHA VPP specify that plans be communicated to all employees. All but the OSHA 1989 Guidelines provide specific guidance about the content of emergency plans (e.g., consideration of natural and man-made emergencies, assignment of responsibilities, response actions, and critique and subsequent improvement of plans). The OSHA 1989 Guidelines simply state that an organization plan and prepare for emergencies and conduct training drills.

Education and Training

All of the standards and guidelines require employee training as part of a SHMS. ANSI Z10 provides guidance on the training format, such as providing training a language that trainees understand. The others provide guidance on the actual content of the training, such as potential hazards, occupational safety and health roles and responsibilities, and hazard identification. Overall, the training should ensure that employees are competent to perform tasks that may impact occupational safety and health.

Communication

The standards and guidelines generally describe two types of communication: communication of SHMS components from management to employees and communication of hazards and recommended actions from employees to management. OHSAS 1800 and the OSHA 1989 Guidelines only indicate that communication policies are required. ANSI Z10 and the OSHA VPP also provide recommendations for communication topics and objectives. The OSHA VPP and OSHA 1989 Guidelines also explicitly state that employees be able to report hazards "without fear of reprisal."

Documentation and Document Control

Only the OSHA 1989 Guidelines omit requirements for SHMS documentation and document control. The other standards and guidelines specifically state that the SHMS requires written documentation of objectives, primary components and/or methodologies, audit results, and/or incident investigations.

Operational Controls

All of the guidelines and standards outline a similar hierarchy of operational controls for organizations to consider and implement when controlling hazards. For ANSI Z10 and OHSAS 18001, this hierarchy includes: elimination, substitution, engineering controls, warnings and administrative controls, and personal protective equipment. The OSHA VPP lists engineering, protective safety devices, administrative, work practices, and personal protective equipment. The OSHA 1989 Guidelines include engineering techniques, procedures for safe work, personal protective equipment, and administrative controls.

Monitoring and Measuring

ANSI Z10 and OHSAS 18001 require monitoring and measuring of the SHMS performance via workplace inspections, exposure assessments, and injury and illness tracking. OHSAS outlines both proactive and reactive monitoring measures (e.g., SHMS compliance versus accident rates). Monitoring required under the OSHA VPP focuses on injury and illness monitoring as rates, which are used to classify an organization under the Start or Merit program. The OSHA VPP also specifically requires a self-inspection program to routinely assess possible workplace hazards and document equipment maintenance, an industrial hygiene program to assess employee exposures to hazards, and an occupational health care program to assess employee health status. The OSHA 1989 Guidelines do not include program or personnel monitoring requirements, but do contain a requirement for establishing a medical program including on-site first aid.

Incident Investigation

All four standards and guidelines require incident investigations. ANSI Z10, the OSHA VPP, and the OSHA 1989 Guidelines require that investigations include near-misses. The OSHA VPP outlines some specific, unique requirements, including: use of impartial personnel to conduct investigations and prevention of undue blame and reprisal on employees. All except the OSHA 1989 Guidelines require some form of incident documentation and communication of results. The OSHA VPP and OSHA 1989 Guidelines also require analysis of injury and illness records to identify trends and patterns overtime.

Audits

ANSI Z10, OHSAS 18001, and the OSHA VPP require periodic reviews or audits of the SHMS to assess and revise the system, as needed. The OSHA VPP requires that these audits occur annually. ANSI Z10 and OHSAS 18001 do not designate a specific audit frequency. Both ANSI Z10 and OHSAS 18001 note that objective and impartial individuals should conduct audits. The OSHA 1989 Guidelines do not explicitly require audits, but do call for regular safety and health inspections to identify new or previously overlooked hazards.

Corrective and Preventative Action

ANSI Z10 and OHSAS 18001 outline requirements for implementing corrective and preventative actions to address non-conformances and immediate hazards. The OSHA VPP requires management to respond to employee suggestions and incident reports as part of the communication requirements. The OSHA 1989 Guidelines do not address corrective and preventative action needs.

Disciplinary Action

The OSHA VPP and OSHA 1989 Guidelines allow for disciplinary actions and enforcement to correct unsafe performance of violations of the SHMS policies, procedures, and rules.

Feedback to the Planning Process

Only ANSI Z10 specifically requires that management establish and maintain a process that ensures that results from investigations, audits, and communications are integrated into future planning.

Management Review Process, Management Review Outcomes and Follow-up

All of the standards and guidelines require that management develop a process to review the organization's SHMS. ANSI Z10 and OHSAS 18001outline action items resulting from this review, such as changes to the SHMS policies, objectives, resources, or other elements. ANSI Z10 and OHSAS 18001 both require management reviews separate from the previously mentioned audits. ANSI Z10 states that the audits should be system oriented and determine if the SHMS meets the requirements of the standard, whereas the management review serves as a strategic and critical evaluation of the SHMS performance. OHSAS 18001 outlines a similar distinction between audits and management reviews. The OSHA VPP and the OSHA 1989 Guidelines do not provide unique definitions of audits versus management reviews. Both, however, require organizations to critically review their SHMS.

Table 2. Detailed Comparison of Safety and Health Management System (SHMS) Standards and Guidelines

ANSI Z10	OHSAS 18001	OSHA VPP	OSHA 1989 Guideline
Standards Reference and Source			
ANSI/AIHA Z10-2005. An approved American National Standard Institute (ANSI) standard. Published by the American Industrial Hygiene Association (AIHA). 2005. http://webstore.ansi.org/ansidocstore/dept.asp?dept_id=3129	OHSAS 18001:1999. Occupational Health and Safety Assessment Series. Occupational Health and Safety Management Systems – Specification. OHSAS 18002:2000. Occupational Health and Safety Management Systems. Guidelines for the implementation of OHSAS 18001. OHSAS 18001:2007. Occupational Health and Safety Assessment Series. Occupational Health and Safety Management Systems – Requirements. Published by the British Standards Institute http://emea.bsi-global.com/OHS/Standards/index.xalter	OSHA VPP. Revisions to the Voluntary Protection Programs to Provide Safe and Healthful Working Conditions. Federal Register 65:45649-45663, 7/24/2000. http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=FEDERAL_REGISTER&p_id=15440 OSHA Directive CSP 03-01-002, Voluntary Protection Programs; Policies and Procedures Manual, 03/25/2003. Chapter 3: Requirements for Star, Merit, Resident Contractor, Construction Industry, and Federal Agency Worksites. http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=DIRECTIVES&p_id=2976	OSHA 1989 Guideline. OSHA Voluntary Guidelines, Safety and Health Program Management Guidelines. Federal Register 54:3904-3916. 1/26/1989 http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=FEDERAL_REGISTER&p_id=12909
Scope			
1.1 Provides minimum requirements for a Safety and Health Management System (SHMS) using a Plan-Do-Check-Act Approach for continual improvement Introduction Considers International Organization for Standardization (ISO) 9001, ISO 14001, and International Labor Organization (ILO) guidelines to enhance compatibility	1 Specifies requirements for a SHMS Introduction Considers of ISO 9001, ISO 14001, and ILO guidelines to enhance compatibility	FR III(A) Promotes safety and health programs tailored to the needs of particular worksites, based on experience with site-based safety and health programs that have shown the value of a comprehensive, systematic approach to worker safety Ch III, Introduction Delineates the requirements for the Star and Merit programs, as well as the unique requirements for the construction industry, Federal agencies, and resident contractors	Introduction Offers guidelines for effective management of occupational safety and health (OS&H) protection, based on cumulative evidence that systematic management policies, procedures, and practices are fundamental to the reduction of work-related injuries and illness and their cost

Table 2. Detailed Comparison of Safety and Health Management System (SHMS) Standards and Guidelines

ANSI Z10	OHSAS 18001	OSHA VPP	OSHA 1989 Guideline
Purpose			
1.2 To provide a management tool to reduce the risk of occupational injuries, illnesses, and fatalities	1 To enable an organization to control OS&H risks and improve OS&H performance	FR III(A) To emphasize the importance of, encourage the improvement of, and recognize excellence in employer-provided, employee-participative, and generally site-specific occupational safety and health programs	Not explicitly stated.
Applicability			
1.3 Applicable to organizations of all types and sizes 2.0 An "organization" is a public or private company, corporation, firm, enterprise, authority, or institution, or part or combination thereof that has its own management function. This can consist of one or many sites or facilities.	1 Applicable to any organization wishing to improve health and safety 18002 4.1 (b) An organization has the freedom and flexibility to define its boundaries and may choose to implement OHSAS 18001 for the entire organization or to specific operating units or activities.	FR III(D) Applicable to private sector general industry, maritime, and construction worksites, and to federal agency worksites subject to 29 CFR 1960 that have implemented a safety and health program meeting the requirements of §1960	Summary Applicable to general industry, shipyards, marine terminals, and longshoring activities, regardless of size and complexity Construction activities, which are covered by Subpart C of the Construction Standards 29 CFR Part 1926, are not addressed.
Occupational Safety and Health Policy			
3.1.2 Top management shall establish a policy that includes • A commitment to protection, continual improvement, and effective employee participation • Conformance with the organization's SHMS, and applicable laws and regulations The policy shall be made available and communicated to employees	4.2 Top management shall authorize a documented policy that: • Is appropriate to the nature and scale of the organization's OS&H risks • Includes a commitment for continual improvement, and compliance with current applicable OS&H legislation • Is communicated to employees and available to interested parties • Reviewed periodically to ensure relevance and appropriateness	FR III(F)5a(1) Management shall clearly establish policies for worker safety and communicate these policies to workers. Ch III, Star Program (C)(1)(c) Management must establish, document, and communicate to employees and contractors goals that are attainable and measurable, objectives that are relevant to workplace hazards, and policies and procedures that indicate how to accomplish the objectives and meet the goals.	The Guidelines (c)(1)(i) The SHMS should clearly state a worksite policy on safe and healthful work and working conditions, so that all personnel with responsibility at the site and personnel at other locations with responsibility for the site understand the priority of safety and health protection in relation to other organizational values.

Table 2. Detailed Comparison of Safety and Health Management System (SHMS) Standards and Guidelines

ANSI Z10	OHSAS 18001	OSHA VPP	OSHA 1989 Guideline
Management Leadership			
3.1.1 Top management shall direct the establishment and implementation of a SHMS appropriate to the nature and scale of the facility and its OS&H risks	4.1.1 Top management shall take ultimate responsibility for OS&H and the SHMS.	FR III(F)5a Management must demonstrate leadership and commitment to the SHMS. Ch III, Star Program (C)(1)(a) Management must demonstrate its commitment to safety and health, as outlined in the list of 14 required activities.	The Guidelines (c)(1)(iii) Top management involvement in implementing the program should be visible so that all will understand that management's commitment is serious.

Table 2. Detailed Comparison of Safety and Health Management System (SHMS) Standards and Guidelines

ANSI Z10	OHSAS 18001	OSHA VPP	OSHA 1989 Guideline
Management Responsibility and Authority			
3.1.2 Top management shall provide leadership and responsibility for • Implementing, maintaining, and monitoring the system • Providing human, financial, and organizational resources • Defining roles, assigning responsibilities, ensuring accountability, delegating authority • Integrating the SHMS into the organization's systems and processes Employees assume responsibility over what they control and adhere to the organization's requirements	4.4.1 Ultimate responsibility for OS&H rests with top management, which shall: • Provide resources essential to the implementation, control, and improvement of the SHMS • Define, document, and communicate the roles, responsibilities, and authorities of personnel who manage, perform, and verify activities • Appoint a member of top management with particular responsibility to ensure that the SHMS is properly implemented and performing	FR III(F)5a(5) and Ch III, Star Program (C)(1)(a) Management responsibility and authority is outlined in 14 required activities: • Establishing, documenting, and communicating OS&H goals and objectives • Signing a commitment to OS&H • Meeting and maintaining the Voluntary Protection Programs (VPP) requirements • Maintaining a written SHMS • Identifying responsible OS&H persons • Assigning adequate authority to OS&H persons • Providing adequate resources • Holding OS&H persons accountable • Planning for unusual and emergency safety • Integrating OS&H into other aspects of planning • Establishing communication lines • Setting an example by following OS&H rules and procedures • Ensuring equal protection to all employees • Conducting annual evaluations	The Guidelines (c)(1)(v-vii) Management must: • Assign and communicate responsibility for all aspects of the SHMS • Provide adequate authority and resources to responsible parties • Hold managers, supervisors, and employees accountable for meeting responsibilities

Table 2. Detailed Comparison of Safety and Health Management System (SHMS) Standards and Guidelines

ANSI Z10	OHSAS 18001	OSHA VPP	OSHA 1989 Guideline
	Employee Participation		
3.2 The organization shall: • Establish a process to ensure effective participation by employees at all levels – especially non-supervisory closest to the hazards • Provide employees mechanisms, time, and resources needed to participate in activities such as incident investigations, procedure development, audits, training development, job safety analysis • Remove obstacles or barriers from participation An employee is any person employed by the organization or by a contractor to the organization (2.0). Individuals not employed (e.g., volunteers, unpaid interns), but present, should be included.	4.4.3 The SHMS shall involve procedures for: employees to be: • Involved in the development and review of policies and procedures • Consulted where there are any changes that affect workplace health and safety • Represented on health and safety matters • Informed as to who is their employee OS&H representative and specified management appointee Contractors and external interested parties are included in participation component of the process, when relevant.	FR III(F)5a(6) The site culture must enable and encourage effective employee involvement in planning and operation of the SHMS. Employees must have at least three active and meaningful ways to participate in OS&H problem identification and resolution. Ch III, Star Program (C)(1)(b) Employees must be involved in the safety and health management system in at least three meaningful, constructive ways, in addition to their right to report a hazard. Avenues for employees to have input into safety and health decisions include participation in audits, accident/incident investigations, self-inspections, suggestion programs, planning, training, job hazard analyses, and appropriate safety and health committees and teams. Employees must also: • Be trained for the tasks they will perform • Receive feedback on suggestions • Be notified about VPP participation • Demonstrate an understanding of the VPP	The Guidelines (c)(1)(iv) The SHMS must encourage employee involvement in the structure and operation of the program.

Table 2. Detailed Comparison of Safety and Health Management System (SHMS) Standards and Guidelines

ANSI Z10	OHSAS 18001	OSHA VPP	OSHA 1989 Guideline
Planning			
4.1.1 Planning is an on-going process with the goal of identifying and prioritizing OS&H issues. Initial review should include: • Relevant business management systems, which may be outside traditional safety and health programs, but that do affect OS&H (e.g., procurement, engineering, qualifications, work organization, programs, policies procedures, workflow) (E4.1.1A) • Hazards, risk, and controls • Resources (e.g., funding, personnel, equipment, mechanisms, and results of employee input) • Applicable regulations, standards, and requirements • Assessments • "Other relevant activities", which may include contractors, maintenance, and non-routine operations (E4.1.1F)	4.3.1 Planning is an on-going process to identify hazards, assess risk, and implement controls. Planning shall consider: • Routine and non-routine activities • Activities of all personnel having access to the workplace (including subcontractors and visitors), • Human behaviors and human factors • Hazards that extend beyond the work place as a result of work practices and hazards that enter the work place from outside sources • Infrastructure, equipment, and facilities • Possible management or SHMS changes • Legal obligations 18002 4.3.1 (b) Initial review may consider: • OH&S risks faced by the organization • An examination of existing OH&S management practices, processes, and procedures • An evaluation of feedback from the investigation of previous incidents, accidents, and emergencies • Communication from employees and other interested parties	FR III(F)5a Planning for OS&H must be a part of the overall management planning process. FR III(F)5b(2) Workplace analyses require OS&H surveys to identify baseline safety hazards. Ch III, Star Program (C)(1)(a) Management must integrate safety and health into planning (e.g., planning for new equipment, processes, or buildings). Ch III, Star Program (C)(2) A hazard identification and analysis system must be implemented to systematically identify basic and unforeseen safety and health hazards, evaluate their risks, and prioritize and recommend methods to eliminate or control hazards to an acceptable level of risk. As part of the hazard identification, the organization must conduct the following assessments: • Baseline safety and industrial hygiene analysis • Hazard analysis of routine jobs, tasks, and processes • Hazard analysis of significant change • Pre-use analysis	The Guidelines (c)(2) To identify all hazards, the worksite analysis must include: • A comprehensive baseline survey • Analysis of planned new facilities, processes, materials, and equipment • Routine job hazard analyses The Guidelines (c)(3)(iii) Management must plan for facility and equipment maintenance to prevent a hazardous breakdown.

Table 2. Detailed Comparison of Safety and Health Management System (SHMS) Standards and Guidelines

ANSI Z10	OHSAS 18001	OSHA VPP	OSHA 1989 Guideline
Ongoing Review			
4.1.2 Ongoing review is required for all information gathered during planning, implementation, evaluation and corrective action, and management review activities. No set periodic review is time specified.	18002 4.3.1 (d)2 Review of hazard identification, risk assessment, and risk control processes is required at time periods set out in the OS&H policy document or predetermined by management. A review should also take place if changes in the organization (e.g., expansion, contraction, restructuring, reapportioning of responsibilities, changes to work methods or behaviors) call into question the validity of existing assessments.	FR III(F)5b(4) and Ch III, Star Program (C)(2)(f) The worksite analysis must include routine self-inspections, including written procedures that determine inspection frequency, scope, responsibility, record keeping, abatement, and hazard tracking.	The Guidelines (c)(1)(viii) Program operations should be reviewed at least annually to evaluate program success in meeting goals and objectives, to identify deficiencies, and to revise the SHMS as necessary.
Assessment and Prioritization			
4.2 The organization shall establish and implement a process to assess and prioritize OS&H issues that: • Establishes priorities based on the level of risk, potential for system improvements, standards, regulations, feasibility. • Identifies root causes and factors The risk assessment process can be qualitative or quantitative, however, the assessment and priority list should be documented	4.3.1 The organization's methodology for hazard identification and risk assessment shall be: • Defined with respect to its nature, scope, and timing to be proactive • Provide for risk classification and identification	FR III(F)5b(3) The workplace analysis must include routine examination and analysis of OS&H hazards associated with individual jobs, processes, or phases. Ch III, Star Program (C)(2) The hazard identification and analysis system serves to systematically identify safety and health hazards, evaluate their risks, and prioritize and recommend corrective actions. The results from the trend analysis required as part of the hazard identification and analysis should help prioritize hazard controls.	The Guidelines (c)(2) The worksite analysis briefly outlines requirements for identifying hazards.
Legal and Other Requirements			
3.1.2 The policy statement requires a commitment to comply with applicable laws and regulations.	4.3.2 The organization shall establish and maintain a procedure for identifying and accessing legal and other applicable OS&H requirements.	FR III(D)(1) Sites must comply with OSHA requirements and correct hazards in a timely manner.	The Guidelines (a)(3) Although compliance with the law, including specific OSHA standards, is an important objective, an effective program looks beyond specific requirements of the law to address all hazards.

Table 2. Detailed Comparison of Safety and Health Management System (SHMS) Standards and Guidelines

ANSI Z10	OHSAS 18001	OSHA VPP	OSHA 1989 Guideline
Establishing Objectives			
4.3 The organization is required to document and quantify, when practicable, objectives. The objectives shall be: • Based on greatest opportunities for improvement • Focused on system improvements • Consistent with the policy • Set, reviewed, and modified at appropriate intervals (no time line specified) Organizations are not expected to set objectives for every issue identified but focus on the critical few. No objectives need be set for quickly resolved items	4.3.3 The organization shall establish and maintain documented OS&H objectives at each functional level in the organization. Objectives shall consider: • Legal and other requirements • OH&S risks • Technological options • Financial, operational, and business requirements, and the views of interested parties Objectives should be measurable where practical. 18002 4.3.3 (d) Meetings establishing objectives should be held regularly (e.g., at least annually). Objectives should address both broad corporate issues and issues of importance to individual functions and levels in an organization.	FR III(F)5a The management must establish and communicate goals and objectives of the SHMS such that all members of the organization can understand the results desired. Ch III, Star Program (C)(1)(c) Management must establish, document, and communicate to employees and contractors goals that are attainable and measurable, objectives that are relevant to workplace hazards, and policies and procedures that indicate how to accomplish the objectives and meet the goals.	The Guidelines (c)(1)(ii) Management must establish and communicate a clear goal for the SHMS and objectives for meeting these goals so that all members of the organization understand the desired results.

Table 2. Detailed Comparison of Safety and Health Management System (SHMS) Standards and Guidelines

ANSI Z10	OHSAS 18001	OSHA VPP	OSHA 1989 Guideline
Implementation Plans and Allocation of Resources			
4.4. Plans shall define resources, responsibilities, timeframes, intermediate steps, and appropriate measures of progress. They can include single or multiple objectives. Plans should be periodically reviewed. Resource allocations should be consistent with the timeframes allotted in the implementation plans. Plans should be reviewed periodically.	OHSAS 18001 and 18002 do not specifically define and discuss "implementation plans." Components required for implementing a SHMS are discussed and include: • A documented methodology for hazard identification and risk assessment (4.3.1) • Use of assessment results to help determine controls (4.3.1) • Documented objectives and policies (4.3.3) • A means and time scale by which objectives are to be achieved (4.3.3) • Regular program review and amendment, as necessary (4.3.3) • Designated OS&H responsibility and authority (4.4.1)	FR III(F) and Ch III, Star Program (C)(1)(a) Implementation plans are not specifically mentioned, however, documentation of the SHMS components (e.g., objectives, baseline analysis) is required. Management must provide and direct adequate resources to those responsible for OS&H and must ensure that all employees have equal, high-quality safety and health protection. Management also must provide funding for prompt correction of uncontrolled hazards. Management must integrate safety and health into other aspects of planning, such as planning for new equipment, processes, buildings, etc.	The Guidelines (c)(1)(vi) Management must provide adequate authority and resources to responsible parties.
Incorporation of Existing Systems			
5.1 Existing systems should be integrated into the SHMS.	18002 4.4.4 (d) No requirement exists to replace existing documentation (e.g., manuals, procedures, or instructions) where these adequately describe current arrangements.		

Table 2. Detailed Comparison of Safety and Health Management System (SHMS) Standards and Guidelines

ANSI Z10	OHSAS 18001	OSHA VPP	OSHA 1989 Guideline
Management of Change			
5.1.2 Organizations shall establish and implement a process to identify and take appropriate steps when new processes or operations are at the design stage or changes are made to existing operations, products, services, or suppliers. This process shall include the: • Identification of hazards • Consideration of human factors and control methods • Review of codes or standards • Determination of the appropriate scope and design review needed for the change	The methods for managing change are not explicitly stated, however, OHSAS 18001 implies hazard identification and risk assessment methodologies apply. 4.3.1 The organization shall identify the OS&H hazards and risks associated with changes in the organization or SHMS prior to the introduction of those changes. 4.4.6 The requirements for operational controls include the management of change.	FR III(F)5b(1) and Ch III, Star Program (C)(2)(c) Hazard analysis of significant changes, including but not limited to non-routine tasks (such as those performed less than once a year), new processes, materials, equipment and facilities, must be conducted to identify uncontrolled hazards prior to the activity or use, and must lead to hazard elimination or control.	The Guidelines (c)(2) The worksite analysis includes analysis of planned and new facilities, processes, materials, and equipment.
Procurement			
5.1.3 The organization shall: • Have a documented procedure to identify and evaluate OS&H risks of materials before they are introduced • Establish requirements to control potential OS&H risks • Ensure that purchased products conform to the organization's OS&H requirements	4.4.6 The organization shall implement and maintain operational controls related to the purchase of goods, equipment, and services.	FR III(F)5b(1) Procedures must be in place to analyze all newly acquired or altered facilities, processes, materials, equipment, and/or phases before use to identify hazards. Ch III, Star Program (C)(2)(d) When a site is considering new equipment, chemicals, facilities, or significantly different operations or procedures, the safety and health impact to the employees must be reviewed.	The Guidelines (c)(2) The worksite analysis includes analysis of planned and new facilities, processes, materials, and equipment.

Table 2. Detailed Comparison of Safety and Health Management System (SHMS) Standards and Guidelines

ANSI Z10	OHSAS 18001	OSHA VPP	OSHA 1989 Guideline
Contractors			
5.1.4 The organization shall establish and implement processes to identify, evaluate, and control health and safety risks: • From contractor's planned and unplanned activities, operations, and materials on the organization's premises • To contractor employees from the organization's activities and operations Contractors include both plant contractors (e.g., security, maintenance, landscaping) and organizational contractors (e.g., consultants, administrative, accounting)	4.4.3.2 The organization shall establish, implement, and maintain procedures for consultation with contractors, where program changes may affect contractor OS&H matters. The organization shall also ensure consultation with interested parties. Throughout OHSAS 18001 and 18002, the text refers to the applicability of requirements to contractors, visitors, and other interested parties.	FR III(F)5a(7) and Ch III, Star Program (C)(1)(c) Contract workers must be provided with safety and health protection equal in quality to that provided to employees. All contractors must follow the host site SHMS. The site should have a documented SHMS that covers contract employees. This system must: • Ensure that OS&H concerns are addressed during the process of contractor selection • Encourage contractors to develop and operate an effective SHMS • Include provisions for timely identification, correction, and tracking of uncontrolled hazards in contractor work areas • Include a provision for removing a contractor or contractor's employees from the site for OS&H violations	

Table 2. Detailed Comparison of Safety and Health Management System (SHMS) Standards and Guidelines

ANSI Z10	OHSAS 18001	OSHA VPP	OSHA 1989 Guideline
Emergency Preparedness			
5.1.5 Documented emergency preparedness plans shall be developed, periodically tested, evaluated and updated. These plans should: • Identify foreseeable emergencies, both natural and man-made • Focus on prevention and response actions • Be appropriate to the size and nature of the organization • Comply with legal and other requirements • Provide for communication to protect all people, including those with special needs, contractors, and visitors	4.4.7 The organization shall: • Establish and maintain plans and procedures to identify the potential for, and responses to, incidents and emergency situations. • Account for the needs of relevant interested parties in these plans. • Periodically tests such procedures where practicable • Review emergency preparedness and response procedures, in particular after the periodic testing and the occurrence of incidents or emergency situations	FR III(F)5c(2) and Ch III, Star Program (C)(3)(h) Sites must have written procedures for response to all types of emergencies (fire, chemical spill, accident, terrorist threat, natural disaster, etc.). These procedures must follow OSHA standards, be communicated to all employees, and be practiced at least annually. Procedures must list requirements or provisions for: • Emergency assessment • Responsibility assignment • First aid • Medical care • Routine and emergency exits • Emergency telephone numbers • Emergency meeting places • Training drills, minimally including annual evacuation drills • Documentation and critique of drills and recommendations for improvement • Personal protective equipment where needed	The Guidelines (c)(3)(iii) The organization must plan and prepare for emergencies and conduct training drills as needed.

Table 2. Detailed Comparison of Safety and Health Management System (SHMS) Standards and Guidelines

ANSI Z10	OHSAS 18001	OSHA VPP	OSHA 1989 Guideline
Education and Training			
5.2 The organization shall define and assess the SHMS competence needed for employees and contractors. The training shall be: • Provided in a language trainees understand • Conducted by competent trainers • Accessible to all employees • Inclusive of applicable SHMS requirements People to be trained are defined by the organization for whom they work (i.e., include volunteers, unpaid interns, students).	4.4.2 The organization shall identify and provide or meet the need for training, evaluate training effectiveness, and retain records. The training should ensure that personnel are competent to perform tasks that may impact OS&H in the workplace. The training program shall ensure that employees are aware of: • The OH&S consequences, actual or potential, of their work activities and the benefits of improved performance • Their roles and responsibilities in achieving conformance • The potential consequences of departure from specified procedures Training shall take into account the differing levels of responsibility, ability, and literacy, and risk.	FR III(F)5b(3) The workplace analysis results must be included in training programs. FR III(F)5d and Ch III, Star Program (C)(4) Training must: • Teach personnel how to recognize hazardous conditions, signs and symptoms of workplace-related illnesses, and safe work procedures. • Comply with OSHA standards • Inform managers and supervisors about their safety and health responsibilities • Inform all employees of their responsibilities for each type of emergency. • Prepare persons responsible for conducting hazard analysis (e.g., self-inspections, accident/incident investigations, job hazard analysis) to carry out these responsibilities • Document attendance • Meet OSHA standards for frequency or adequate intervals • Address changes in work processes, new equipment, or new procedures • Be provided by persons who have specific knowledge or expertise in the subject area • Address personal protective equipment when needed	The Guidelines (c)(4) Safety and health training must be conducted so that: • All employees understand hazards to which they may be exposed • Supervisors will carry out their safety and health responsibilities effectively by identifying hazards, maintaining physical protections, and reinforcing employee training • Managers understand their safety and health responsibilities

Table 2. Detailed Comparison of Safety and Health Management System (SHMS) Standards and Guidelines

ANSI Z10	OHSAS 18001	OSHA VPP	OSHA 1989 Guideline
Communication			
5.3 The organization shall establish a process designed to: • Communicate information about the SHMS and its implementation • Achieve prompt employee reporting of work-related injuries, illnesses, incidents, and hazard and risks • Encourage employees to recommend possible hazard controls and reporting procedures • Identify and remove communication barriers	4.4.3 The organizations shall establish, implement, and maintain procedures for: • Internal communications • Communications with contractors and visitors • Receiving, documenting, and responding to external party communications 18002 4.4.3 (d) Employees should be represented and informed on OS&H matters. The process for communications should involve employees.	FR III(F)5a(b) and Ch III, Star Program (C)(1)(a) Management must communicate the SHMS goals, objectives, policies, and procedures. FR III(F)5b(5) and Ch III, Star Program (C)(2)(g) The organization must operate a reliable system, potentially anonymous, that enables employees to notify appropriate management personnel in writing, without fear of reprisal, about conditions that appear hazardous, and to receive timely and appropriate responses.	The Guidelines (c)(1) Goals and objectives of the SHMS must be communicated clearly to all members of an organization. The Guidelines (c)(2)(iii) Employees must be provided with a reliable system for notifying management, without fear of reprisal, about conditions that appear to be hazardous.

Table 2. Detailed Comparison of Safety and Health Management System (SHMS) Standards and Guidelines

ANSI Z10	OHSAS 18001	OSHA VPP	OSHA 1989 Guideline
Documentation and Document Control			
5.4 The organization is required to have a process for creating, organizing, and maintaining necessary documents, which include: • OS&H policy • Objectives • Implementation plan • Audits • Management reviews Documents shall be legible, readily identifiable and accessible, protected against damage, deterioration, or loss, and retained for a specified period. Documents shall be reviewed and updated as necessary.	4.4.4 The organization is required to develop: • An OS&H policy • A description of the SHMS scope and the main elements of the SHMS, including their interactions • Documents and records as outlined throughout OHSAS 18001 • Documents and records deemed necessary by the organization 18002 4.4.4 (d) There is no requirement to develop documentation in a particular format in order to conform to OHSAS 18001. 4.4.5 and 4.5.4 The organization shall establish and maintain procedures for controlling documents and records to: • Review, revise, and approve their adequacy • Ensure that materials are current, legible, and available • Ensure that relevant external origin documents are identified and distributed • Prevent use of obsolete documents	FR III(F)5a(4) All critical elements of a basic SHMS must be part of the written program, including management leadership and employee involvement, worksite analysis, hazard prevention and control, and safety and health training. Ch III, Star Program (C)(1)(a) Managers must maintain a written SHMS that documents the elements and procedures for implementing the SHMS as well as other OS&H programs required by OSHA. Ch III, Star Program (C)(2) The site must document evaluations conducted under the worksite analysis, the industrial hygiene program, and accident and near miss investigations	

Table 2. Detailed Comparison of Safety and Health Management System (SHMS) Standards and Guidelines

ANSI Z10	OHSAS 18001	OSHA VPP	OSHA 1989 Guideline
Operational Controls			
5.1 The organization shall implement operational controls, as applicable, based on the preferred order of controls: • Elimination • Substitution • Engineering controls • Warnings • Administrative controls • Personal protective equipment	4.4.6 The organization shall determine those operations and activities that are associated with identified hazards where control measures need to be applied. This includes management of change. The organization shall implement and maintain operational controls applicable to organizational activities, purchased goods and services, and contractors and visitors. Organizations shall document procedures, including where a lack of control deviates from the OS&H policy. 4.3.1. When determining controls, consideration to reducing risks should follow the hierarchy: • Elimination • Substitution • Engineering controls • Signage/warnings and/or administrative controls • Personal protective equipment	FR III(F)5b(3) The workplace analysis results must be included in hazard control programs. FR III(F)5c and Ch III, Star Program (C)(3)(b) Hazard elimination and control methods should consider the types, severity, and risk of hazards posed to personnel. The following hierarchy should be used in determining control methods: • Engineering • Protective safety devices • Administrative • Work practices • Personal protective equipment	The Guidelines (c)(3)(i) Under hazard prevention and control, procedures must be established to detect and correct or control potential hazards in a timely manner using the following measures: • Engineering techniques • Procedures for safe work (e.g., training) • Personal protective equipment • Administrative controls

Table 2. Detailed Comparison of Safety and Health Management System (SHMS) Standards and Guidelines

ANSI Z10	OHSAS 18001	OSHA VPP	OSHA 1989 Guideline
Monitoring and Measuring			
6.1 The organization shall establish and implement processes to monitor and evaluate hazards, risks, and their controls. Methods include • Workplace inspection and testing • Exposure assessment • Injury, illness, and incident tracking • Employee input • Occupational health assessments Organizations should develop leading indicators (human factor risks, near-miss incidents, non-conformances found during inspections), not just rely on injury or illness reports. Results shall be communicated to relevant parties.	4.5.1 The organization shall establish and maintain procedures to monitor and measure OH&S performance on a regular basis. These procedures shall provide for: • Qualitative and quantitative measures to monitor the effectiveness of controls • Monitoring of the OH&S objectives • Proactive measures that monitor compliance with OH&S management programs, controls, and operational criteria • Reactive measures that monitor accidents, illnesses, incidents (including near misses) and other historical evidence of deficient OH&S performance • Recording of monitoring and measurement results data.	FR III(D)(1) and Ch III, Star Program (B) Injury and illness rates at a site are evaluated for a 3-year period for comparison with Bureau of Labor Statistics and Standard Industrial Classification code to assess a site's qualification under the Star Program. FR III(F)5b(2) and Ch III, Star Program (C)(2)(h) An industrial hygiene program is required and includes sample protocols and methods for assessing employee exposure to health hazards. FR III(F)5b(4) and Ch III, Star Program (C)(2)(f) Document routine self-inspections of the workplace, as outlined in written procedures, should occur monthly to identify possible workplace hazards. FR III(F)5c(2) Hazard prevention includes a written system for documenting equipment maintenance and an occupational health care program to assess employee health status.	The Guidelines (c)(3)(iv) Management must establish a medical program, including on-site first aid, to minimize illness or injury.

Table 2. Detailed Comparison of Safety and Health Management System (SHMS) Standards and Guidelines

ANSI Z10	OHSAS 18001	OSHA VPP	OSHA 1989 Guideline
Incident Investigation			
6.2 The organization shall establish and implement processes to investigate and analyze reported work-related incidents in a timely manner. This investigation process should define what needs to be investigated (e.g., near misses), timeframes for the investigation, who should participate, and how recommendations should be generated and communicated.	4.5.2 The organization shall establish and maintain procedures to record, investigate, and analyze incidents to: • Determine the underlying cause • Identify corrective actions, preventative actions, and opportunities for continued improvement • Communicate the investigation results The investigation results shall be documented and maintained. 18002 4.5.2 The guidelines provide detailed information about procedures for recording and investigating incidences, as well as identifying corrective actions and preventative measures.	FR III(F)5b(6-7) An accident/incident investigation system must include written procedures and guidelines, with written reports of findings, hazard elimination, and control tracking. A system should be in place to analyze trends associated with injury/illness to identify patterns and common causes. Ch III, Star Program (C)(2)(i) Accident and near-miss investigations must: • Be documented in written reports • Be conducted by impartial personnel trained in accident investigation techniques • Document the sequence of relevant events • Identify all contributing factors, emphasizing failure or lack of hazard controls • Determine if the SHMS was effective and provide recommendations to prevent recurrence • Not place undue blame or reprisal on employees • Assign priority, time frames, and responsibility for implementing recommended controls • Make results available to employees on request	The Guidelines (c)(2)(iv-v) The worksite analysis must provide for investigation of accidents and near miss incidents, so that their causes and means for prevention are identified. Injury and illness records should be evaluated to identify trends and patterns over time.

Table 2. Detailed Comparison of Safety and Health Management System (SHMS) Standards and Guidelines

ANSI Z10	OHSAS 18001	OSHA VPP	OSHA 1989 Guideline
		Audits	
6.3 The organization shall establish and implement a process to: • Conduct periodic audits • Document and communicate the results to those responsible for the corrective and preventative action, area supervisors, and affected employees • Immediately communicate situations identified in audits that can be expected to cause a fatality, serious injury, or illness in the immediate future Audits should be conducted by individuals independent of the activity being audited. This does not mean that audits shall be done by individuals external to the organization. Audits are system oriented and should determine if the SHMS meets the requirements of ANSI Z10.	4.5.4 The organization shall establish, implement, and maintain an internal audit procedures to determine that the SHMS: • Conforms to planned arrangements and OHSAS specifications • Has been properly implemented • Is effective in meeting the organizations policy and objectives • Provides audit results to management The audit procedures shall be based on the results from risk assessments and previous audits. The audit procedures should outline responsibilities, planning and completion requirements, reporting results, record keeping, and audit criteria, scope, frequency, and methods. Auditors shall be objective and impartial. 18002 4.5.54 (b) Auditors do not necessarily need to be external to the organization.	FR III(F)5a(8) and Ch III, Star Program (C)(1)(d) A system and written procedures must be in place to annually evaluate the SHMS. This evaluation must critically review and assess the effectiveness of all elements of the SHMS; identify strengths and weaknesses; recommend specific changes; and assign responsibility for improvements.	The Guidelines (c)(2)(ii) The worksite analysis must provide for regular safety and health inspections to identify new or previously missed hazards or control failures.

Table 2. Detailed Comparison of Safety and Health Management System (SHMS) Standards and Guidelines

ANSI Z10	OHSAS 18001	OSHA VPP	OSHA 1989 Guideline
Corrective and Preventative Action			
6.4 A process shall be established to: • Address SHMS deficiencies and inadequately controlled hazards • Identify newly created hazards resulting from corrective and preventative actions and evaluate the overall risk reduction • Expedite action on inadequately controlled items that could cause serious injury and illness • Track actions to ensure their effectiveness	4.5.3.2 The organization shall establish, implement, and maintain procedures for taking corrective actions. Procedures shall: • Identify and correct nonconformity and mitigating OH&S consequences • Investigate nonconformity to determine the cause and prevent recurrence • Evaluate the need for action • Record and communicate corrective and preventative measures • Review the effectiveness of corrective and preventative actions Proposed corrective and preventative actions shall be reviewed through the risk assessment process prior to implementation. Corrective and preventative actions shall be appropriate to the magnitude of the problem and associated risk. The organization shall document changes.	The methods for conducting corrective and preventative actions are not explicitly stated. The OSHA VPP, however, requires that management respond to employee suggestions and incident reports as part of the communication requirement. FR III(F)5b(5) and Ch III, Star Program (C)(2)(g) The organization must operate a reliable system that enables employees to notify management about conditions that appear hazardous and to receive timely and appropriate responses.	
Disciplinary Action			
		FR III(F)5c(1) and Ch III, Star Program (C)(3)(g) A documented disciplinary system must be in place and must include enforcement of appropriate action for violations of the safety and health policies, procedures, and rules. The disciplinary policy must be clearly communicated and equitably enforced to employees and management.	The Guidelines (c)(3)(i) Hazard prevention and control can include, as necessary, enforcement through clearly communicated disciplinary systems to correct unsafe performance.

Table 2. Detailed Comparison of Safety and Health Management System (SHMS) Standards and Guidelines

ANSI Z10	OHSAS 18001	OSHA VPP	OSHA 1989 Guideline
Feedback to the Planning Process			
6.5 The organization shall establish and maintain processes to ensure that results of monitoring and measurement, audits, incident investigation, and corrective and preventative actions are included in the planning process and management review.			
Management Review Process			
7.1 At least annually, the organization shall review recommended improvements and ensure continued suitability, adequacy, and effectiveness. The review shall include: • Progress in reduction of risk • Effectiveness of processes to identify, assess, and prioritize risk and system deficiencies • Effectiveness at addressing root cause • Input from employees and employee representatives • Status of corrective and preventative actions • Follow-up items from any audit or previous management review • The extent to which objectives have been met • The performance of the SHMS relative to expectations	4.6 Management shall review the SHMS at planned intervals to ensure continued suitability, adequacy, and effectiveness. Reviews shall assess improvement opportunities and possible changes to the SHMS. Other review input includes: • Compliance with legal requirements • Results of participation and consultation • Relevant communications • Organizational OS&H performance • Extent to which objectives have been met • Status of incident investigations, corrective actions, and preventative measures • Follow-up actions from previous management reviews • Changing circumstances • Recommendations for improvement 18002 4.6 (d) The guidelines provide additional information about the content and topics of the management review.	The OSHA VPP does not provide unique requirements for audits versus management reviews. The broad requirement to conduct annual evaluations includes a critical review of all elements of the SHMS. FR III(F)5a(8) and Ch III, Star Program (C)(1)(d) A system and written procedures must be in place to annually evaluate the SHMS. This evaluation must critically review and assess the effectiveness of all elements of the SHMS; identify strengths and weaknesses; recommend specific changes; and assign responsibility for improvements.	The Guidelines (c)(1)(viii) Managers should at least annually evaluate the success of the SHMS in meeting goals and objectives to identify deficiencies and revise objectives.

Table 2. Detailed Comparison of Safety and Health Management System (SHMS) Standards and Guidelines

ANSI Z10	OHSAS 18001	OSHA VPP	OSHA 1989 Guideline
Management Review Outcomes and Follow-up			
7.2 At the conclusion of the management review, top management shall determine: • The future direction of the SHMS based on business strategies and conditions • The need to change the organization's policies, objectives, resources, or other SHMS elements Action items shall be developed, documented, communicated to affected individuals, and tracked to completion.	4.6 Outputs from the management review shall be consistent with the organization's commitment to improvement and include possible changes to: • OS&H performance • OS&H policy and objectives • Organization resources • Other elements of the SHMS		

Safety and Health Management Systems Course
– Group Activity
Comparison of Consensus and International Standards

Directions: using the SHMS Standard Comparisons handout as a guide, for each requirement listed in the left column find the corresponding requirement in each of the consensus and international standards. Write the brief system summary of requirement listed for each standard so as to compare system similarities and differences

Requirement	OHSAS 18001	VPP	ANSI Z-10	ILO-OSH 2001
2. Employee Participation				
12. Communication System				
13. Incident Investigation and Root Cause Analysis				

- **Publication Date:** 01/26/1989
- **Publication Type:** Notice
- **Fed Register #:** 54:3904-3916
- **Standard Number:** 1910; 1910.1200; 1915; 1917; 1918; 1926
- **Title:** Safety and Health Program Management Guidelines; Issuance of Vo

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DEPARTMENT OF LABOR

Occupational Safety and Health Administration

[Docket No. C-02]

Safety and Health Program Management Guidelines; Issuance of Voluntary Guidelines

AGENCY: Occupational Safety and Health Administration (OSHA). Department of Labor

ACTION: Issuance of voluntary guidelines.

SUMMARY: The Occupational Safety and Health Administration (OSHA) is issuing safety and health program management guidelines for use by employers to prevent occupational injuries and illnesses.

The language in these guidelines is general so that it may be broadly applied in general industry, shipyards, marine terminals, and longshoring activities regardless of the size, nature, or complexity of operations. Construction activities are not addressed here because they are already covered by Subpart C of the Construction standards, 29 CFR Part 1926.

The guidelines consist of program elements which represent a distillation of applied safety and health management practices that are used by employers who are successful in protecting the safety and health of their employees. These program elements are advocated by many safety and health professionals and consultants. They were strongly endorsed by individuals, corporations, professional associations, and labor representatives who responded to the OSHA request for comments and information. 53 FR 26790, published on July 15, 1988.

EFFECTIVE DATE: January 26, 1989

FOR FURTHER INFORMATION: James F. Foster, Office of Information and Consumer Affairs, Occupational Safety and Health Administration, U.S. Department of Labor, 200 Constitution Avenue N.W., Room N3637, Washington DC 20210, Telephone: (202) 523-8151.

SUPPLEMENTARY INFORMATION

I. Background

Over their years of experience with enforcing the provisions of the Occupational Safety and Health Act of 1970 (29 U.S.C. 651 et.seq.). OSHA representatives have noted a strong correlation between the application of sound management practices in the operation of safety and health programs and a low incidence of occupational injuries and illnesses. Where effective safety and health management is practiced, injury and illness rates are significantly less than rates at comparable worksites where safety and health management is weak or non-existant. (See, for example, "DOL Safety Programs Cut Workers Comp Costs." Good News, Oklahoma Department of Labor. October 5, 1988, p.1.; and

Michael E. Nave, "Impact of Voluntary Compliance and Compliance Inspection Programs on Experience Rates among Small Employers in California." Doctoral Thesis, Oregon Sate University, 1987.) As a result of this awareness, OSHA increase emphasis on management practices in several of the Agency's programs. Standards, including notably the Hazard Communication Standard (29 CFR 1910.1200), began specifically to require management programs. An early OSHA standard requiring safety and health management programs in the construction industry was recently clarified and reaffirmed by the issuance of OSHA Instruction STD 3-1.1. OSHA also instituted programs to encourage voluntary improvement of safety and health management. These included informations pamphlets and consultation services to assist in the development of management programs for small businesses.

In addition, in 1982 OSHA began to approve worksites with exemplary safety and health management programs for participation in the Voluntary Protection Programs (VPP). Safety and health practices, procedures, and recordkeeping at participating worksites have been carefully evaluated and monitored by OSHA. These VPP worksites generally have lost-workday case rates that range form on-fifth to one-third the rates experienced by average worksites (Unpublished statistics, U.S. Department of Labor, OSHA 1988).

Further, most participating sites report improved employee morale and productivity as a by-product of their safety and health management activities.

Based upon the success of VPP and positive experience with other safety and health program initiatives and in order to broaden the information available to OSHA from other sources. OSHA published a request for comments and information on July 15, 1988, that included possible language for Safety and Health Program Guidelines which would be applicable to general industry, shipyard, and longshoring activities (53 FR 26790). That request inadvertently omitted reference to marine terminals, to which the guidelines are also intended to apply.

In response to several requests, on September 1, 1988. OSHA extended the original six-week comment period for another month, to September 28, 1988 (53 FR 33823). In addition, on September 8, 1988. OSHA announced a public information-gathering meeting to be held on October 6, 1988, at the OSHA Training Institute in Des Plaines, Illinois (53 FR 34780).

OSHA received 54 comments from individuals, labor representatives, trade association, professional safety and health associations and societies, safety and health consultants, and Federal and State agencies. Thirteen commentors presented information and comments at the public meeting.

II. Summary of Public Response

In the July 15, 1988, request for information and comment under the heading, "Issues for Discussion", (53 FR 26796). OSHA asked questions concerning five major areas: the nature of the risk from inadequate management; the value of safety and health management guidance; appropriate methods for educating employers; and incentives for effective management.

There was no new information received concerning either the nature of the risk or the value of safety and health programs, but many commentors expressed the belief that safety and health program management makes a major impact on loss prevention. During the public meeting, OSHA was informed that the VPP Participants' Association might be able to obtain information concerning costs and benefits of effective safety and health management through its membership (Tr.pp. 73-76).

As a means of educating employers, one commentator suggested videotaping model safety and health programs to help small businesses (Exh. 3-37). Another commentor advised a major outreach effort using all types of media to reach employer (Exh. 3-16).

Suggested incentives for effective management included tax breaks (Exh. 3-33) and incentives similar to those offered by the VPP (Exh.3-37). One commentor suggesting the tax breaks acknowledged that they might be difficult to administer fairly (Exh. 3-36). Another commentor proposed the use of the guidelines by compliance officers to determine whether or not to do a partial or comprehensive inspection (Exh. 3-27).

Most respondents offered comments and/or suggestions on the subject of suitable guidance language. Several however, also expressed a preference that the guidance from OSHA take the from of a mandatory standard rather than of voluntary guidelines (Exhs. 3-14, 3-17, 3-22, 3-26, 3-28).

Almost all the commentors endorsed the concept that effective safety and health management is the decisive factor in ensuring worker safety and health (e.g., 3-4, 3-23, 3-36, 3-37, 3-45, 3-46). Three-fourths of the respondents specifically endorsed the issuance of guidelines. A few respondents objected to the proposal because of expected cost, anticipated impact on diversity and innovation, or the possibility of confusion resulting from the issuance of voluntary guidelines by a regulatory agency (e.g., Exhs. 3-41, 3-44, 3-50).

Most respondents indicated that the guidelines are generally applicable regardless of industry type, size, or nature of activity (e.g., Exhs. 3-28, 3-36). Several commentors recommended greater detail and specificity regarding duties, responsibilities, and program guidance (e.g., Exh. 3-29); others stated that greater specificity would inhibit necessary flexibility (e.g., Exh. 3-12). Although some proposed reorganization of the guidelines (e.g., Exhs. 3-7, 3-16, 3-22, 3-31, 3-32), there seemed to be agreement that the guidelines as suggested are generally applicable and complete.

Many respondents strongly maintained that the guidelines should specify that safety and health management goals and operational activities should be set forth in writing, regardless of how small the business may be (Exhs. 3-30, 3-35, 3-37, 3-49, 3-51).

Several commentors, including both organized labor respondents, maintained that compliance with the guidelines ought to be mandatory (Exhs. 3-14, 3-17, 3-22, 3-26). The majority maintained that they should not.

Several commentors provided safety and health program manuals and materials and suggested that the guidelines include appendices for industry groups or examples of adequate programs or "question and answer" examples similar to those in the "Recordkeeping Guidelines for Occupational Injuries and Illnesses" developed by the bureau of Labor Statistics (Exhs. 3-13, 3-20, 3-21, 3-30, 3-35, 3-43, 3-45, 3-46).

III. Issues and Rationale for Their Resolution

A. General Issues

Although commentors almost unanimously supported the concept of safety and health program management they raised several genre issues and proposed various changes to the language. The general issues were: (1) Whether OSHA publication of guidelines would be useful; (2) whether a different organization of the management program elements would promote their use; (3) whether the guidelines should be mandated in the form of a rule; (4) whether a task group should be formed to determine the content of the guidelines; and (5) whether various aspects of a safety and health management program should be in writing.

1. Usefulness of the Guidelines

A few respondents stated that safety and health program guidelines would be of no value or even counter-productive. These respondents stated, "We see no reason for issuance of guidance * * *"

(Exh. 3-12): " * * * guidelines, when issued by a regulatory agency can create confusion with respect to compliance issues * * *" (Exh. 3-41); and "* * * guidelines are unnecessary and put companies with comprehensive, long-standing performance-based programs at risk in being force dot comply with the very specific, prescriptive language as proposed" (Exh. 3-19).

Most of the respondents expressed the belief that the guidelines describe policies, procedures, and practices which are essential to effective safety and health protection and that they are sufficiently performance-oriented that they can be met by a variety of methods. OSHA believes that the criteria described are not unreasonably prescriptive and that they are unlikely to conflict with effective programs already in place. They are not being promulgated as enforceable rules by are being issued as guidelines to assist employers in their efforts to maintain safe and healthful work and working conditions.

In addition, OSHA has observed and most commentors agree, that a significant number of worksited, particularly medium and small businesses, often lack the professional resources to develop adequated safety and health management practices and programs on their own. IN many larger worksited, some program elements are heavily emphasized while other important aspects are neglected. After careful consideration of the record and in light of the above, OSHA concludes that safety and health management guidelines will not be unnecessarily burdensome and will assist employers in their efforts to provide safe and healthful employment.

2. Organization of the Guidelines

Some commentors suggested different methods of organizing the elements of the guidelines or presented safety and health manuals in use at their operations which were organized differently. One respondent stated that since some of the most useful material in the notice requesting comment (53 FR 26790) was in the discussion of the guidelines, the suggested language should be expanded to include that material in the final guidelines. A suggested revision of the guidelines was attached to the comment (Exh. 3-22). This point of view was supported by another comment, "* * * the information currently contained in the background section of the July 15 preamble should be condensed into an introduction to the guidelines * * * OSHA should use [the analysis explaining the reasons for including each provision of the guidelines] in the body of the guidelines to ensure that the goals and objectives of the guidelines will be communicated to employers" (Exh. 3-46).

OSHA recognizes that effective programs can be organized and presented in a variety of ways and that significantly different terminologies and approaches are used by safety and health professionals and loss control managers. While these differences often appear to be great initially, upon examination by the Agency they are frequently found to address substantially the same components and objectives.

Since the responses to the request indicated that the program elements were generally understood, the basic organization of the elements as presented in the request for comments has been retained in the final version. OSHA has, however, incorporated some of the background and explanatory materials into the guidelines to assist the employer's comprehension of the objective of each action recommended by the guidelines. In addition, OSHA has added a Commentary following the guidelines themselves. The commentary incorporates and expands on much of the explanatory material from the notice requesting comment.

Another commentor questioned whether management commitment is appropriately described as a program element (Exh. 3-44B). OSHA agrees with the observation that management commitment is not a program element in the same sense that worksite analysis, hazard prevention and control, and training are. However, the eight actions described under the title "Management Commitment" are specific program activities which directly indicate management commitment. At the same time, comments received on the he nature and importance of employee involvement in an effective safety and health program (Exhs. 3-17, 3-21, 3-37, 3-13) suggest that such involvement merits clearer emphasis. OSHA has therefore decided to modify the element title to read, "Management Commitment and Employee Involvement."

3. Mandating the Guidelines

Several commentors stated that the guidelines should be mandated and enforced as a rule. For example, "In our view, OSHA has the authority under the Occupational Safety and Health Act of 1970 to issue regulations mandating worksite safety and health committees and broader workplace programs * * * we strongly urge the Agency to make this initiative a priority for regulatory action * * *" [Exh. 3-17]; "* * * instead of a guideline, OSHA [should develop] a negotiated performance standard * * *" [Exh. 3-14]; "* * * a [safety and health management] program is [the] * * * basic responsibility [of employers] and they should be required to do so through regulation * * *" [Exh. 3-22]; " * * * workplace health and safety programs are so vital that they should be mandatory, not voluntary as currently proposed * * *" [Exh. 3-26]; "* * * they should be proposed as a standard * * * the action could boost the issue of occupational safety and health out of needless conflicts and confusion to a higher order of national coherence" [Exh. 3-28]. On the other hand, other respondents " * * * support the guideline versus the standard approach * * *" [Exh. 3-16]; "* * * management commitment can not be mandated * * *" [Exh. 3-3]; "* * * we recommend that no attempt be made to enforce the guidelines as if they were a rule * * *" [Exh. 3-5]; "* * * encourage the Agency to issue these guidelines as advisories only" [Exh. 3-11].

After considering written comments and oral presentations made at the information-gathering meeting. OSHA has decided to issue voluntary safety and health program guidelines rather than a mandatory standard. A period of experience with published program guidelines will undoubtedly produce refinements in methods and practices, as well as provide evidence to indicate whether further action by the Agency is required. Publication of guidelines does not prevent the Agency from undertaking regulatory action, if found to be needed at some future date.

4. Task Group Consideration of the Guidelines

Several commentators favored the formation of a task group representing the affected constituencies and subject matter specialists to refine and further elaborate the guidelines [Exhs. 3-23, 3-35]. It was also suggested that a bibliography of literature on safety and health management be developed and attached to he guidelines [Exhs. 3-36, 3-15, 3-16, 3-52].

OSHA welcomes all information and voluntary efforts designed to supplement these guidelines for use in special industry groups, special risk operations, small businesses, and nay other applications. The Agency recognized the value of these supplementary actions but will not delay publication of the guidelines while awaiting their completion. After publication, OSHA will consider how best to utilize the offers of assistance in compiling supplementary materials.

5. Written Safety and Health Guidance

A number of respondents strongly urged that safety and health programs be supported by written guidance in all cases. "Communication of authority, responsibility, and accountability to various parties must be written to prevent confusion and uncertainty" [Exh. 3-35]. "The program will be understood better and managers can be held accountable more readily, if the specific elements of the employer's program are set forth clearly in writing" [Exh. 3-49]. "[A] truly effective safety program can [not] be maintained unless it is reduced to writing. Understandings and practices are too easily confused [considering] cultural differences, personnel retirements, transfers, etc." [Exh. 3-51]. This point is reinforced by OSHA's experience that almost all of the worksites observed to have excellent safety and health programs have written guidance covering such issues as policies, practices, procedures, emergency plans, posted signs, and performance objectives.

OSHA has noticed, however, that some businesses, usually small ones with less complex operations and/or potential hazards, effectively communicate policies and procedures orally and through example. It is not obvious at what level of complexity, or at what size of operation, written guidance becomes necessary, nor which particular processes within various operations require it.

For these reasons, OSHA has retained in the final guidelines the language providing to flexibility in the use of written guidance but has added information on the benefits of written guidance.

B. Specific Issues

Issues dealing with the substance of the guidelines were: (1) whether employees should be involved in the structure and operation of the program and in decisions which affect their safety and health, (b)(1)(ii); (2) whether the system to encourage employees to report conditions that appear hazardous should include the concept of protection from reprisal, (b)(1)(ii); (3) whether the term "competent persons" should be used, (b)(1)(i); (4) whether "a clearly communicated disciplinary system" should be specified, (b)(3)(i); (5) whether employers can be expected to ensure understanding of rules, responsibilities, and procedures by members of their organizations, (b)(4); (6) coordination with other OSHA instructions concerning safety and health management; (7) providing guidance on recordkeeping; and (8) miscellaneous clarifications.

1. Employee Involvement

Some respondents felt that OSHA's language on employee involvement, (b)(1)(ii), was too weak. "[T]he central element of worksite programs should be safety and health committees with worker participation * * * mandated by law" [Exh. 3-17]. "OSHA should require that workers be allowed to participated in all phases of the program" {Exh. 3-26]. Others felt that the language implied a transfer of decision-making authority to employees from employer "Employers should determine * * * whether decision-making in this area will be shared * * * or whether it would unduly interfere with the responsibility to ensure a safe workplace" [Exh. 3-49]. "Caution is urged as * * * to the 'decision-making' aspects of employee involvement * * * [T]he employer is responsible" [Exh. 3-51]. Another group felt that OSHA should not specify employee involvement (Exh. 3-37, 3-42]. Other commentors agreed with the OSHA concept of employee involvement in decision-making and suggested added specifications such as advising employee involvement in all of the suggested possible areas of employee participation (Exh. 3-14, 3-26]. Most testimony at the public meeting which addressed this point also supported OSHA's choice of language [Exh. 3-4, Tr. pp. 17, 24, and 36].

OSHA has decided to retain the proposed language with slight revision and with the addition of a clause that explains its intent. [See (c)(1)(4)]. OSHA agrees that responsibility for decision-making lies with the employer. It has found, however, that employee involvement in decisions affecting their safety and health results in better management decisions and more effective protection. OSHA has therefore added explanatory language in its Commentary on the guidelines to make clear its intention to advise that employee not make decisions but that they be included in the process on decision-making on matters which affect their health and safety.

2. Employee Reports of Hazards

Some commentors felt that OSHA provisions for employee reports of hazards (b)(2)(ii), were inadequate. One commentor stated that " * * * [a worksite] where employees know that management wants to be made aware of safety issues and will take action to correct them, and even solicits such suggestions, is a better place to work" (Exh. 3-29). OSHA;s own experience, reflected in the VPP requirements, indicates a clear need for a system under which employee reports of safety and health concerns are encouraged, protected from reprisal, and given an appropriate response in a reliable and timely fashion. OSHA agrees that a similar provision should be a part of these guidelines as well.

Accordingly, a separate provision to that effect has been included in the section dealing with worksite analysis.

3. Use of the Term "Competent Person" Several respondents questioned the use of the term "competent persons," (b)(2)(i), to describe the need for expertise and experience in the conduct of periodic worksite analysis (Exh. 3-46). No one disputed whether persons conducting the analysis should be competent but questioned whether the term "competent" might be misunderstood in view of the many different risk situations and conditions possible in various workplaces and given that the term has specific meaning in maritime and construction standards.

Since the performance objective of a worksite analysis is defined in the phrase "so that all hazards and potential hazards are identified," OSHA agrees that it is not necessary to state the need for competence by persons who perform the work. That need is implicit. The emphasis on competence was included initially because many processes, equipment, and substances in use at worksites may pose hazards beyond the recognition of the employer and employees at the site. This point is made clear in paragraph (c)(2)(ii) and the term "competent" has been removed. A discussion of the relative competence needed for the various approaches to worksite analysis is, however, included in the Commentary.

4. Discipline

The proposed guidelines called for "a clearly communicated disciplinary system" as one of the sub-elements for hazard prevention and control, (b)(3)(i). One respondent suggested that such a system is more logically a part of training. Others questioned whether it should be contained in the guidelines at all. For example. "* * * it is not within OSHA's jurisdiction to dictate employer-employee relations. Secondly, it has been our experience that all to often the `careless worker' is blamed. In almost every instance we have been able to identify external causes that contributed to worker's `unsafe' behavior, such as hazardous conditions * * * production quotas/time pressure, inadequate training, etc." (Exh. 3-26). On the other hand, some commentors felt that OSHA had not emphasized discipline enough. For example, "* * * the guidelines (should) be more direct and also detail a compulsory disciplinary system or structure * * * to avoid vagueness, to establish consistency and fairness * * * and to take the oneness load off those who would otherwise be loath to be so strict" (Exh. 3-10). "(The guidelines) should include * * * the concept that all employees have certain responsibilities regarding health and safety which if not exercised adequately will result in some type of disciplinary action" (Exh. 3-20).

In the revised final version of the guidelines. OSHA refers to enforcement of safe work procedures through a clearly communicated disciplinary system where necessary to the control or prevention of hazards. (See paragraph (c)(3)(i).) OSHA views this reference to enforcement through a disciplinary procedure as an indispensable piece of a whole approach to safety and health protection. Based on OSHA's experience and in light of the record, the Agency concludes that there is little possibility of effective safety and health protection without carefully designed rules for safe and healthful practices that cove all personnel, from the site manager to the hourly employees. Since those most involved with activity which could expose them to hazards are often the hourly employees, it makes good sense to involve them in the establishment of safe work practices and safe work rules as was discussed at the public meeting (Tr. pp. 117-118). Once these work practices are established and those who are expected to follow them understand why it is important to follow them, it is OSHA's experience that there is little need to utilize a corrective disciplinary system to ensure that they are followed.

When safe work practices, clearly understood and fairly enforced disciplinary procedures, and management accountability go hand-in hand, there is little opportunity to push workers into taking short cuts. OSHA not in any way suggesting harsh or punitive measures in lieu of the elimination or control of physical hazards. OSHA concludes that an organizational discipline exists for all levels of personnel at a worksite and believes that the application of that system to safety and health program activities is an important and appropriate concern for OSHA in the provision of safety and health management guidelines. Therefore, the language concerning discipline and enforcement is retained in paragraphs (c)(3)(i) and (c)(4)(ii). An elaboration of its rational is included in the Commentary.

5. Ensuring Understanding

Several commentors objected that employers can never perfectly ensure that all employees understand all rules, responsibilities, and procedures. They recommended that the words "ensure understanding" be deleted from guidelines and suggested using language similar to that provided in one comment that " * * * all employees should be provided with training" (Exh. 3-54).

It is OSHA's experience that the quality, content, and success of training vary widely. The act of training itself is not the result that OSHA recommends for effective worker protection. OSHA recognizes the natural limits of communication and comprehension, and agrees that some reasonable interpretation of the phrase "ensure understanding" must be applied. The term used in the guidelines is intended to convey a need for the individuals to verify by some reasonable means that hazard information and the necessary elements of a safety and health program are understood by the people who must deal with them. This can be done by formal testing, oral questioning, observations, or other means. In fact, observation and interviewing of employees are key methods used by OSHA in VPP reviews to determine, among other thins, the quality of employee safety, health, and emergency training. The term is intended to convey the same diligence that would be applied to ensuring an understanding of other operational requirements, such as time and attendance, production schedules, and job skills. The Agency is retaining the words "ensure understanding" in paragraphs (c)(4)(i), (ii) and (iii).

6. Coordination with other OSHA Instructions

Some respondents from Federal Agencies expressed concern that the proposed guidelines might conflict with requirements for safety and health management already established by OSHA for Federal Government agencies (Exhs 3-10, 3-44). Before preparing the final version. OSHA compared the proposed guidelines to existing Federal Agency requirements, its instructions to compliance officers for determining whether to do full or partial inspections based on safety and health program management, the requirements of the VPP, and the 7(c)(1) consultation safety and health program elements. The expanded sub-element on employee reports of hazards and the explanation added to the sub-element on employee involvement concerned protection from discrimination resulted in part from those comparisons. With these additions. OSHA concluded that, while these guidelines may lead to adjustments in the other policies reviewed, they pose no fundamental conflict with those policies.

7. Recordkeeping

Two of the commentors stated that OSHA should address the keeping of injury records (Exhs. 3-49, 3-51). To avoid confusing duplication. OSHA has decided not to include areas which are fully covered by regulation. No language concerning recordkeeping was added to the guidelines. The guidelines do, however, deal with the effective use of occupational injury and illness data, (See (c)(2)(v).)

8. Miscellaneous

Some commentors stated concerns with the use in the proposed guidelines of "OSHA advises." pointing out that this language appears in regulation and makes the guidelines sound less voluntary. The use of the word "encourage" was suggested as an alternative (Exhs. 3-14, 3-54). OSHA does not agree that the use of "advise" constitutes a requirement: rather it indicates advice which may or may not be accepted. OSHA has, however, added the words "and encourages" to "advises" in paragraph (a)(1), to ensure that employers understand the voluntary nature of the guidelines.

One commentor suggested that "facility" be added to the guideline language on preventive maintenance of equipment (Exh. 3-28). OSHA agrees and has expanded preventive maintenance to include the facility as well as equipment in paragraph (c)(3)(ii). Paragraph (c)(2)(i)(B), concerning analysis prior to use, was also changed to include "facility." Another commentor suggested that OSHA use the term "change analysis" in describing the necessity to review all new equipment, procedures, materials, and facilities to ensure that potential hazards are identified and prevented or controlled (Exh. 3-21). Finding merit in this suggestion, OSHA has added the term to the Commentary on this issue.

A commentor suggested that OSHA make clear the necessity of safety and health training prior to the assumption of duties (Exh. 3-21). OSHA rulemaking records are replete with evidence supporting the need for such training. Consequently, such language has been included in the Commentary on employee training.

Based on its own further review, OSHA has made several additional changes. (1) In the "General" section of the guidelines, the word "systematic" has been added to emphasize the need for a systematic approach to all aspects of safety and health management. (2) In the section on "Management Commitment and Employee Involvement," an initial sub-element has been added which recommends a policy statement on safety and health protection, to ensure that all personnel concerned with the worksite understand the priority of safety and health protection in relation to other organizational values. (3) In the first sub-element under "Worksite Analysis," a distinction has been made between "baseline" comprehensive worksite surveys and "update" surveys, to emphasize the importance of a comprehensive baseline record for subsequent worksite analysis. In this same sub-element, the reference to "phrase hazard analysis" has been dropped, because it is primarily relevant to construction.

OSHA's request for comments and information was published in the Proposed Rules Section of the **Federal Register** (53 FR 28790, July 15, 1988) based on the possibility that any guidelines issuing from it might be published in the Code of Federal Regulations (CFR). OSHA has decided not to publish the guidelines in the CFR at this time. The guidelines are therefore published as a notice.

Authority and Signature

This document was prepared under the direction of John A Pendergrass, Assistant Secretary of Labor for Occupational Safety and Health, U. S. Department of Labor, 200 Constitution Avenue NW., Washington, DC 20210.

Accordingly, pursuant to the authority of the Assistant Secretary, the following guideline is published. Signed at Washington, DC this nineteenth day of January, 1989.

John A. Pendergrass,

Assistant secretary of Labor for Occupational Safety and Health.

Safety and Health Management Guidelines

Scope and Application. (1) This guideline applies to all places of employment which are covered by OSHA standards in 29 CFR Parts 1910, 1915, 1917 and 1918.

(2) This guideline does not apply to places of employment which are covered by OSHA standards found in 29 CFR Part 1926.

Introduction. The Occupational Safety and Health Administration (OSHA) has concluded that effective management of worker safety and health protection is a decisive factor in reducing the extent and the severity of work-related injuries and illnesses. Effective management addresses all work-related hazards, including those potential hazards which could result from a change in worksite conditions or practices. It addresses hazards whether or not they are regulated by government standards.

OSHA has reached this conclusion in the course of its evaluation of worksites in its enforcement program, its State-operated consultation program, and its Voluntary Protection Programs. These evaluations have revealed a basic relationship between effective management of worker safety and health protection and a low incidence and severity of employee injuries. Such management also correlates with the elimination or adequate control of employee exposure to toxic substances and other unhealthful conditions.

OSHA's experience in the Voluntary Protection Programs has also indicated that effective management of safety and health protection improves employee moral and productivity, as well as significantly reducing workers' compensation costs and other less obvious costs of work-related injuries and illnesses.

Through an analysis of public comment received in response to its request and through an earlier review of literature. OSHA has found that the conclusions it has reached from its own experience are supported by a substantial body of expert and practitioner opinion.

Based on this cumulative evidence that systematic management policies, procedures and practices are fundamental to the reduction of work-related injuries an dillnesses an dtheir attendant economic costs. OSHA offers the following guidelines for effective management of worker safety and health protection. OSHA urges all employers to establish and to maintain programs which meet these guidelines in a manner which addresses the specific operations and conditions of their worksites.

The Guidelines

(a) General. (1) Employers are advised and encouraged to institute and maintain in their establishments a program which provides systematic policies, procedures, and practices that are adequate to recognize and protect their employees from occupational safety and health hazards.

(2) An effective program includes provisions for the systematic identification, evaluation, and prevention or control of general workplace hazards, specific job hazards, and potential hazards which may arise from foreseeable conditions.

(3) Although compliance with the law, including specific OSHA standards, is an important objective, and effective program looks beyond specific requirements of law to address all hazards. It will seek to prevent injuries and illnesses, whether or not compliance is at issue.

(4) The extent to which the program is described in writing is less important then how effective it is in practice. As the size of a worksite or the complexity of a hazardous operation increases, however, the need for written guidance increases to ensure clear communications of policies and priorities and consistent and fair application of rules.

(b) Major Elements. An effective occupational safety and health program will include the following four elements. To implement these elements, it will include the actions described in paragraph (c).

(1) Management commitment and employee involvement are complementary. Management commitment provides the motivating force and the resources for organizing and controlling activities within an organization. In an effective program, management regards workers safety and health as a fundamental value of the organization and applies its commitment to safety and health protection with

as much vigor as to other organizational purposes. Employee involvement provides the means through which workers develop and/or express their own commitment to safety and health protection, for themselves and for their fellow workers.

(2) Worksite analysis involves a variety of worksite examinations, to identify not only existing hazards but also conditions and operations in which changes might occur to create hazards. Unawareness of a hazard which stems from failure to examine the worksite is a sure sign that safety and health policies and/or practices are ineffective. Effective management actively analyzes the work and worksite, to anticipate and prevent harmful occurrences.

(3) Hazard prevention and controls are triggered by a determination that a hazard or potential hazard exists. Where feasible, hazards are prevented by effective design of the jobsite or job. Where it is not feasible to eliminate them, they are controlled to prevent unsafe and unhealthful exposure. Elimination or controls is accomplished in a timely manner, once a hazard or potential hazard is recognized.

(4) Safety and health training addresses the safety and health responsibilities of all personnel concerned with the site, whether salaried or hourly. If is often most effective when incorporated into other training about performance requirements and job practices. Its complexity depends on the size and complexity of the worksite, and the nature of the hazards and potential hazards at the site.

(c) Recommended Actions (I) Management Commitment and Employee Involvement. (i) State clearly a worksite policy on safe and healthful work and working conditions, so that all personnel with responsibility at the site and personnel at other locations with responsibility for the site understand the priority of safety and health protection in relation to other organizational values.

(ii) Establish and communicate a clear goal for the safety and health program and objectives for meeting that goal, so that all members of the organization understand the results desired and the measures planned for achieving them.

(iii) Provide visible top management involvement in implementing the program, so that all will understand that management's commitments is serious.

(iv) Provides for the encourage employee involvement in the structure and operation of the program and in decisions that affect their safety and health, so that they will commit their insight and energy to achieving the safety and health program's goal and objectives.

(v) Assign and communicate responsibility for all aspects of the program so that manages, supervisors, and employees in all parts of the organization know what performance is expected of them.

(vi) Provide adequate authority and resources to responsible parties, so that assigned responsibilities can be met.

(vii) Hold managers, supervisors, and employees accountable for meeting their responsibilities, so that essential tasks will be performed.

(viii) Review program operations at least annually to evaluate their success in meeting the goal and objectives, so that deficiencies can be identified and the program and/or the objectives can be revised when they do not meet the goal of effective safety and health protection. (2) Worksite Analysis. (i) So that all hazards are identified:

(A) Conduct comprehensive baseline worksite surveys for safety and health and periodic comprehensive update surveys:

(B) Analyze planned and new facilities, processes, materials, and equipment; and

(C) Perform routine job hazard analyses.

(ii) Provide for regular site safety and health inspection, so that new or previously missed hazards and failures in hazard controls are identified.

(iii) So that employee insight and experience in safety and health protection may be utilized and employee concerns may be addressed, provide a reliable system for employees, without fear of reprisal, to notify management personnel about conditions that appear hazardous and to receive timely and appropriate responses; and encourage employees to use the system. (iv) Provide for investigation of accidents and "near miss" incidents, so that their causes and means for their prevention are identified.

(v) Analyze injury and illness trends over time, so that patterns with common causes can be identified and prevented.

(3) Hazard Prevention and Control. (i) So that all current and potential hazards, however detected, are corrected or controlled in a timely manner, established procedures for that purpose, using the following measures:

(A) Engineering techniques where feasible and appropriate:

(B) Procedures for safe work which are understood and followed by all affected parties, as a result of training, positive reinforcement, correction of unsafe performance, and, if necessary, enforcement through a clearly communicated disciplinary system:

(C) Provision of personal protective equipment; and

(D) Administrative controls, such as reducing the duration of exposure.

(ii) Provide for facility and equipment maintenance, so that hazardous breakdown is prevented.

(iii) Plan and prepare for emergencies, and conduct training and drills as needed, so that the response of all parties to emergencies will be "second nature."

(iv) Establish a medical program which includes availability of first aid on site and of physician and emergency medical care nearby, so that harm will be minimized if any injury or illness does occur.

(4) Safety and Health Training. (i) Ensure that all employees understand the hazards to which they may be exposed and how to prevent harm to themselves and others from exposure to these hazards, so that employees accept and follow established safety and health protections.

(ii) So that supervisors will carry out their safety and health responsibilities effectively, ensure that they understand those responsibilities and the reasons for them, including:

(A) Analyzing the work under their supervision to identify unrecognized potential hazards:

(B) Maintaining physical protections in their work areas; and

(C) Reinforcing employee training on the nature of potential hazards in their work and on needed protective measures, through continual performance feedback and, if necessary, through enforcement of safe work practices.

(iii) Ensure that managers understand their safety and health responsibilities, as described under (c)(1). "Management Commitment and Employee Involvement," so that the managers will effectively carry out those responsibilities.

The Commentary

(Paragraph by Paragraph)

This Commentary indicates the background and rationale for each part of the guidelines. To facilitate its use, each segment of the guidelines except the introduction is repented just before it is discussed. The background of the introduction immediately follows this paragraph.

Introduction

Comment on Introduction. Over the years, OSHA and State enforcement and consultation staff have seen many examples of exemplary workplaces where safety and health programs were well managed and where injury raters were exceptionally low. The common characteristics observed at these sites were the use of organized and systematic methods to assign appropriate responsibility to all managers, supervisors, and employees, to inspect regularly for and control existing and potential hazards, and to orient and train all employees in the ways and means to eliminate or avoid those hazards.

The fundamental importance of such methods has been reflected in decisions of the Occupational Safety and Health Review Commission and the U.S. Courts of Appeal, especially in cases involving an employer claim that a violative workplace condition or action resulted from unpreventable employee misconduct. Such misconduct has been recognized as a defense against citation only when an employer had a work rule prohibiting the conduct, had provided training to ensure that the rule was understood, and had supplied adequate supervision (including regular inspections and work rule enforcement) to ensure that the work rule was followed. These criteria have been applied by the courts in cases involving the citation of OSHA standards as well as the general duty clause. The implication of these cases is that an employer has the duty to establish and maintain such management practices, to the extent that they are necessary to ensure that safe and healthful working conditions are maintained and that safe and healthful work practices are followed.

OSHA has reflected it increasing recognition of the importance of effective safety and health program management by including program management requirements in standards; by recommending safety and health program improvements in conjunction with inspections; by issuing citations under the general duty clause of the Occupational Safety and Health Act of 1970 (Sec. 5(a)(1), 29 U.S.C. 654) which include safety and health management factors; by revising its State-operated consultation program to focus on the promotion of effective safety and health management; and by a range of other promotional efforts.

To further encourage employers and employees to adopt and improve existing safety and health programs, OSHA established on July 2, 1982 (47 FR 29025), the Voluntary Protection Programs (VPP) to recognize worksites with exemplary safety and health management. The participation requirements embodied in the VPP are a distillation of the means, methods, and processes already in use at worksites where safety and health conditions are exceptionally good.

Because VPP participating worksites are officially recognized and are excluded form routine programmed OSHA inspections, the quality of the safety and health programs at these sites must be maintained as models of effectiveness. In 1988, 62 sites were participating in the VPP, and several had been in the program for five or more years. Collectively, during their participation in the VPP, these sites experienced lost-time injuries that were approximately one-fifth to one-third of the average for their industrial classifications. (Unpublished statistics, U.S. Department of Labor, OSHA, 1988).

The fact the VPP participants have injury rates which are so much lower than their industry averages demonstrates that significant reduction is possible. It also strongly indicates that the requirements of the VPP, distilled in the management policies, procedures, and practices described in these recommended guidelines, are major means to achieve the reduction.

In addition, employers at these sites reported improved morale and productivity benefits, as well as significantly reduced workers' compensation and other costs. One plant manager found that the implementation of a single safe work practice at his 44-employee plant during the first three years of participation in the VPP resulted in a greater volume of product and a reduction in rejected project. This change alone saved $265,000 a year. (Proceedings of Public Information Gathering Meeting on Suggested Guidelines for General Safety and Health Programs. U.S. Department of Labor, OSHA, Docket No. C-02. P.77 (October 6, 1988).)

The reduction in workers' compensation and other costs and the improvements in worksite morale and productivity reported by VPP participants reflect significant economic benefits which complement the substantial safety and health benefits of improvement management of worker protection. A Business Roundtable report (Improving Construction Safety Performance (New York, The Business Roundtable. Report A-3. January, 1982). p. 16) concludes that, for construction, the savings from effective administration of safety and health protection is 3.2 times the cost. OSHA has no independent confirmation of this ratio nor of its relevance to industries other than construction. Based on its experience with VPP sites and the conclusions of experienced safety and health professionals, however, OSHA believes that the long-term benefits of effective safety and health management consistently exceed its costs.

To understand this conclusion, it is essential to understand the indirect as well as the direct costs of occupational injuries and illnesses. According to commonly accepted safety management concepts as outlined by Frank E. Bird, Jr. in his Management Guide to Loss Control (Loganville, GA: Institute Press, 1978), for every $1 in medical or insurance compensation costs ("direct costs") for a worker injury, $5-50 more are likely to be spent on "indirect costs" to repair building, tool or equipment damage; to replace damage products or materials; and to make up for losses from production delays and interruptions. An additional $1-3 in indirect costs will be spent for hiring and training replacements and for time to investigate the incident. Mr. Bird's figures do not consider the impact of reduced commitment to work when employees operate in a situation in which injuries are common. Because they frequently involve longer absences, the impact of job- related illnesses can be even greater.

Although economic incentives are secondary to human health and safety as motives for safety and health protection, an employer may find it useful to calculate the total (direct and indirect) costs of injuries and illnesses as a means of determining the economic benefits which might be achieved by preventing the injuries and illnesses. By determining the average cost of an injury and of an illness, the employer can estimate the incremental impact of reducing the rate of injuries and illnesses at the site and therefore the potential economic benefit of such reduction.

Some employers may wish to compare their savings or costs in relation to the nation average for their industries. A method which can be used for that comparison with respect to occupational injuries is described by David R. Bell, a former OSHA employee, in his article, "Gauging Safety Outlays and Objectives," in Occupational Hazards. June, 1987. If the lost workday case rate (LWCR) for a site is below the national average, a formula provided by Bell can be used to calculate how many fewer injuries occurred than would have occurred if the site rate had equalled the national average. (Lost workdays case rates are published annually by the Bureau of Labor Statistics in "Occupational Injuries and Illnesses in the United States by Industry", available from the U.S. Government Printing Office, Washington, DC 20402. The rate for each industry represents the average number of lost workday cases that occurred per 100 employees in the industry).

The number of cases which would have occurred if the site rate had been average Bell calls "expected cases" and the actual cases he calls "injuries avoided." His formula, in which "employment at the site" means the number of equivalent work-years at the site during the year, is as follows:

Industry LWCR = Employment at the site

100
=
Expected LW Cases --
Actual LW Cases =
Number of Injuries
Avoided

If the site lost workday case rate is above, the national average, the number of cases by which the site exceeds the national average can be determined by subtracting "expected cases" from "actual cases," once the former number has been calculated.

By multiplying the number of "injuries avoided" or the number of injuries above the average by the average cost of an injury at the site, the employer can estimate the savings or losses which resulted from the quality of its management of safety protection relative to national performance. (Because national data on the incidence of occupational illnesses is incomplete, the formula is less useful in relation to occupational health protection.)

(a) General

"(a) General. (1) Employers are advised and encouraged to institute and maintain in their establishments a program which provides systematic policies, procedures, and practices that are adequate to recognize and protect their employees from occupational safety and health hazards."

Comment: In essence, this paragraph states that the end (protection of employees from occupational safety and health hazards) determines the means. The criterion for determining what is needed in a safety and health program at a particular site is: whatever feasible action it takes to protect the workers from the safety and health hazards at that specific site. The form of the safety and health program elements and implementing actions will vary at each site according to the nature of site organization and the nature of the hazards and potential hazards at the site.

"(2) An effective program includes provisions for the systematic identification, evaluation, and prevention or control of general workplace hazards, specific job hazards and potential hazards, which may arise from foreseeable conditions."

Comment: Provisions for identifying and preventing hazards are systematic. If not, hazards or potential hazards will be missed and/or preventive controls will break down, and the chance of injury or illness will significantly increase.

General workplace hazards include such conditions as tripping hazards in walking areas and poor illumination. Specific job hazards may relate to the specific conditions in a job, such as exposure to a saw blade, or to the inherent hazardousness of an operation required in the job, such as the removal of jammed material from a point of operation. Potential hazards include such situations as the possibility of exposure to toxic chemicals as a result of a rupture of piping from the impact of a forklift.

"(3) Although compliance with the law, including specific OSHA standards, is an important objective, an effective program looks beyond specific requirements of law to address all hazards. It will seek to prevent injuries and illnesses, whether or not compliance is at issue."

Comment: OSHA and other government standards provide important guidance on the identification and control of hazards, but they are not always enough. Although compliance with the law is an important objective of and motive for an effective program. OSHA has found that the most successful programs look beyond government standards and legal requirements. They look for other sources of information about hazards, such as the National Electrical Code (NEC), the American Conference of Government Industrial Hygienists (ACGIH), and the American National Standards Institute (ANSI): and they use their own seasoned analytical abilities to look for and address hazards not covered by government or other standards. Their motive is to prevent injuries and illnesses and the attendant human and economic costs, whether or not compliance with the law is at issue.

This approach is essential in view of the difficulty that regulatory agencies have in moving quickly to set standards for every possible hazard in the workplace and to revise them when new information becomes available.

"(4) The extent to which the program is described in writing is less important than how effective it is in practice. As the size of a worksite or the complexity of a hazardous operation increases, however, the need for written guidance increases to ensure clear communication of policies and priorities and consistent and fair application of rules."

Comment: OSHA recognizes that relatively simple, unwritten policies, practices, and procedures are adequate to address the hazards in many smaller or less hazardous establishments. The more complex and hazardous and operation is, the more formal (written) and complex the program will probably need to be. A written program which is revised regularly can clarify policy, create consistency and continuity in its interpretation, serve as a checkpoint whenever there is a question of priority between safety and production, and support fair and equitable enforcement of safe work rules and practices.

(b) Major Elements

"(b) Major Elements. An effect occupational safety and health program will include the following four elements. To implement these elements, it will include the actions described in paragraph (c).

(1) Management commitment and employee involvement are complementary. Management commitment provides the motivation force and the resources for organizing and controlling activities within an organization. In an effective program, management regards worker safety and health as a fundamental value of the organization and applies its commitment to safety and health protection with as much vigor as to other organizational purposes. Employee involvement provides the means through which workers develop and/or express their own commitment to safety and health protection, for themselves and for their fellow workers.

(2) Worksite analysis involves a variety of worksite examinations, to identify not only existing hazards but also conditions and operations in which changes might occur to create hazards. Unawareness of a hazard which stems from failure to examine the worksite is a sure sign that safety and health policies and/or practices are ineffective. Effective management actively analyzes the work and worksite, to anticipate and prevent harmful occurrences.

(3) Hazard prevention and control are triggered by a determination that a hazard or potential hazard exists. Where feasible, hazards are prevented by effective design of the job site or job. Where it is not feasible to eliminate them, they are controlled to prevent unsafe or unhealthful exposure. Elimination or control is accomplished in a timely manner, once a hazard or potential hazard is recognized.

(4) Safety and health training addresses the safety and health responsibilities of all personnel concerned with the site, whether salaried or hourly. It is often most effective when incorporated into other training about performance requirements and job practices. Its complexity depends on the size and complexity of the worksite, and the nature of the hazards and potential hazards at the site."

Comment: These paragraphs set forth the areas of managerial practice which are essential to effective safety and health protection. These practices, means, and methods are consistent with those used by employers to achieve other organizational objectives, such as cost control, quality, and productivity. Giving safety and health equal organizational priority in relation to these other objectives is fundamental to the protection of individual employees and to the effectiveness of the organization itself.

These elements consist of methods historically used to accomplish organizational objectives. They are generic in that they are generally applicable regardless of unique operations or conditions of particular firms. Only the form which they take varies. Though at points they are expressed in the terms of the "hierarchical" organizations most common in American industry (i.e., by reference to "managers," "supervisors," "employees"), they can easily be adapted to other organizational forms or styles of operation. They relate to essential concerns and activities of any organization. It is on this basis that OSHA considers them applicable in shipyard employment, marine terminals, and longshoring as well as general industry.

(c) Recommended Actions.

(c)(1) Management Commitment and Employee Involvement

Comment: Each action listed in this section represents the application to occupational safety and health of a key means for organizing, motivating and controlling activities within an organization.

"(c)(1)(i) State clearly a worksite policy on safe and healthful work and working conditions, so that all personnel with responsibility at the site and personnel at other locations with responsibility for the site understand the priority of safety and health protection in relation to other organizational values."

Comment: A statement of policy is the foundation of safety and health management. It communicates the value in which safety and health protection is held in the business organization. If it is absorbed by all in the organization, it becomes the basic point of reference for all decisions affecting safety and health. It also becomes the criterion by which the adequacy of protective actions is measured.

"(c)(1)(ii) Establish and communicate a clear goal for the safety and health program and objectives for meeting that goal, so that all members of the organization understand the results desired and the measures planned for achieving them."

Comment: A goal, and implementing objectives, make the safety and health policy more specific. Communicating them ensures that all in the organization understand the direction it is taking.

"(c)(1)(iii) Provide visible top management involvement in implementing the program so that all will understand that management's commitment is serious."

Comment: Actions speak louder than words. If top management gives high priority to safety and health protection in practice, other will see and follow. If not, a written or spoken policy of high priority for safety and health will have little credibility, and others will not follow it. Plant managers who wear required personal protective equipment in work areas, perform periodic "housekeeping" inspections, and personally track performance in safety and health protection demonstrate such involvement.

"(c)(1)(iv) Provide for and encourage employee involvement in the structure and operation of the program and in decisions that affect their safety and health, so that they will commit their insight and energy to achieving the safety and health program's goal and objectives."

Comment: Since an effective program depends on commitment by employees as well as managers, it is important for their concerns to be reflected in it. An effective program includes all personnel in the organization--managers, supervisors, and other--in policy development, planning, and operations.

This does not mean transfer of responsibility to employees. the Occupational Safety and Health Act of 1970 clearly places responsibility for safety and health protection on the employer. However, employees intimate knowledge of the jobs they perform and the special concerns they bring to the job give them a unique perspective which can be used to make the program more effective.

Employee participation may take any or all of a number of forms. For instance, the system for notifying management personnel about conditions that appear hazardous serves as a major means of worksite analysis to identify hazards and is therefore included as paragraph (c)(2)(iii). Such a system is, however, by itself not sufficient to provide for effective employee involvement. Forms of participation which engage employees more fully in systematic prevention include (1) inspecting for hazards and recommending corrections or controls; (2) analyzing jobs to locate potential hazards and develop safe work procedures; (3) developing or revising general rules for safe work; (4) training newly hired employees in safe work procedures and rules, and/or training their co-workers in newly revised safe work procedures; (5) providing programs and presentations for safety meeting; and (6) assisting in accident investigations.

Such functions can be carried out in a number of organizational contexts. Joint labor-management committees are most common. Other means include labor safety committees, safety circle teams, rotational assignment of employees to such functions, and acceptance of employee volunteers for the functions.

Employee involvement is effective only when the employer welcomes it and provides protection from any discrimination, including unofficial harassment, to the employees involved. However, inclusion of employees in one or more of the suggested activities, or in any way that fits the individual worksite and provides an employee role that has impact on decisions about safety and health protection, will strengthen the employer's overall program of safety and health protection.

"(c)(1)(v) Assign and communicate responsibility for all aspects of the program, so that managers, supervisors, and employees in all parts of the organization know that performance is expected of them."

Comment: Assignment of responsibility for safety and health protection to a single staff member, or even a small group, will leave other members feeling that someone else is taking care of safety and health problems. Everyone in an organization has some responsibility for safety and health.

A clear statement of that responsibility, as it relates both to organizational goals and objectives and to the specific functions of individuals, is essential. If all persons in an organization do not know what is expected of them, they are unlikely to perform as desired.

"(c)(1)(vi) Provide adequate authority and resources to responsible parties, so that assigned responsibilities can be met."

Comment: It is unreasonable to assign responsibility without providing adequate authority and resources to get the job done. For example, a person with responsibility for the safety of a piece of machinery need the authority to shut it down and get it repaired. Needed resources may include adequately trained and equipped personnel and adequate operational and capital expenditure funds.

"(c)(1)(vii) Hold managers, supervisors, and employees accountable for meeting their responsibilities, so that essential tasks will be performed."

Comment: Stating expectations of managers, supervisors, and other employees means little if management is not serious enough to track performance, to reward it when it is competent and to correct it when it is not. Holding everyone accountable for meeting their responsibilities is at the heart of effective workers safety and health protection. If management states high expectations for such protection but pays greater attention to productivity or other values, safety and health protection will be neglected.

To be effective, a system of accountability must be applied to everyone, from senior management to hourly employees. If some are held firmly to expected performance and other are not, the system will lose its credibility. Those held to expectations will be resentful; those allowed to neglect expectations may increase their neglect. Consequently, the chance of injury and illness will increase.

"(c)(1)(viii) Review program operations at least annually to evaluate their success in meeting the goal and objectives, so that deficiencies can be identified and the program and/or the objectives can be revised when they do not meet the goal of effective safety and health protection."

Comment: A Comprehensive program audit is essential periodically to evaluate the whole set of safety and health management means, methods, and processes, to ensure that they are adequate to protect against the potential hazards at the specific worksite. The audit determines whether policies and procedures are implemented as planned and whether in practice they have met the objectives set for the program. It also determines whether the objectives provide sufficient challenge to lead the organization to meet the program goal of effective safety and health protection. When either performance or the objectives themselves are found inadequate, revisions are made. Without such a comprehensive review, program flaws and their interrelationship may not be caught and corrected.

(c)(2) Worksite Analysis

Comment: The identification of hazards and potential hazards at a worksite requires an active, on-going examination and analysis of work processes and working conditions. Because many hazards are by nature difficult to recognize, effective examination and analysis will approach the work and working conditions from several perspectives. Each of the activities recommended in this paragraph represents a different perspective.

The recognition of hazards which could result from changes in work practices or conditions requires especially thorough observation and thought, both from those who perform the work and those who are specially trained for that purpose. Since such divergence from the routine and familiar is often the occasion for injuries and health hazard exposures to occur, the anticipation of such changes is critical.

Identification at a worksite of those safety and health hazards which are recognized in its industry is a critical foundation for safety and health protection. It is the general duty of the employer under the Occupational Safety and Health Act of 1970. Successful employers will actively seek the benefit of the experience of others in their industry, through trade associations, equipment manufacturers, and other sources.

An effective program does not stop at this point, however. It continually reviews working conditions and operations to identify hazards which have not previously been recognized in the industry.

Implicit in the provision for the survey, reviews, and analyses recommended in this section is the need for employers to seek competent advice and assistance when they lack needed expertise and to use appropriate means and methods to examine and assess all existing and foreseeable hazards. Personnel who perform comprehensive baseline and update surveys, analysis of new facilities, processes, procedures, and equipment, and job hazard analyses may require greater expertise than those who conduct routine inspections, since the former are conducting a boarder and/or deeper review.

Personnel performing regular inspections should, however, possess a degree of experience and competence adequate to recognize hazards in the areas they review and to identify reasonable means for their correction or control. Such competence should normally be expected of ordinary employees who are capable of safely supervising or performing the operations of the specific workplace. Smaller businesses which need assistance in the development of such competence can receive free assistance from a number of sources, including OSHA and a nationwide network of OSHA-funded, State-operated consultation projects.

"(c)(2)(i) So that all hazards and potential hazards are identified:

(A) conduct comprehensive baseline worksite survey for safety and health and periodic comprehensive update surveys;

(B) analyze planned and new facilities, processes, materials, and equipment; and

(C) perform routine job hazard analyses."

Comment: A comprehensive baseline survey of the work and working conditions at a site permits a systematic recording of those hazards and potential hazards which can be recognized without intensive analysis. This baseline record provides a checklist for the more frequent routine inspections, recommended in paragraph (c)(2)(ii). With those hazards under control, attention can be given to the intensive analysis required to recognized less obvious hazards.

Subsequent comprehensive surveys provide an opportunity to step back from the routine check on control of previously recognized hazards and look for others. With the baseline established, these subsequent reviews are one occasion for focusing more intensive analysis in areas with the highest potential for new or less obvious hazards. The frequency with which comprehensive examinations are needed depends on the complexity, hazardousness, and changeability of the worksite. Many successful worksites conduct such reviews on an annual or biannual basis.

Analysis of new facilities, processes, materials, and equipment in the course of their design and early use (sometimes called "change analysis") provides a check against the introduction of new hazards with them. Effective management ensures the conduct of such analyses during the planning phase, just before their first use, and during the early phases of their use. Numerous specific OSHA standards require inspection of particular equipment, conditions, and activities as a safety precaution prior to operation or use. This guideline makes clear that, in effective safety and health programs, this generally recognized inspection practice is applied more broadly to all conditions and activities.

Job hazard analysis is an important tool for more intensive analysis to identify hazards and potential hazards not previously recognized, and to determine protective measures. Through more careful attention to the work processes in a particular job, analysis can recognize new points at which exposure to hazards may occur or at which foreseeable changes in practice or conditions could result in new hazards.

"(c)(2)(ii) Provide for regular site safety and health inspections, so that new or previously missed hazards and failures in hazard controls are identified."

Comment: Once a comprehensive examination of the workplace has been conducted and hazard controls have been established, routine site safety and health inspections are necessary to ensure that changes in conditions and activities do not create new hazards and that hazard controls remain in place and are effective. Routine industrial hygiene monitoring and sampling are essential components of such inspections in many workplaces.

Personnel conducting these inspections also look out for new or previously unrecognized hazards, but not as thoroughly as those conducting comprehensive surveys.

The frequency and scope of these "routine" inspection depends on the nature and severity of the hazards which could be present and the relative stability and complexity of worksite operations.

"(c)(2)(iii) So that employee insight and experience is safety and health protection may be utilized and employee concerns may be addressed, provide a reliable system for employees, without fear of reprisal, to notify management personnel about conditions that appear hazardous and to receive timely and appropriate responses; and encourage employees to use the system."

Comment: A reliable system for employees to notify management of conditions or practices that appear hazardous and to receive a timely and appropriate response serves a dual purpose. It gives management the benefit of many more points of observations and more experienced insight in recognizing hazards or other symptoms of breakdown in safety and health protection systems. It also gives employees assurance that their investment in safety and health is worthwhile.

A system is reliable only if it ensures employees a credible and timely response. The response will include both timely action to address any problems identified and a timely explanation of why particular actions were or were not taken.

Since the employer benefits from employee notices, effective management will not only guard against reprisals to avoid discouraging them but will take positive steps to encourage their submission.

"(c)(2)(iv) Provide for investigation of accidents and `near miss' incidents, so that their causes and means for preventing repetitions are identified."

Comments: Accidents, and incidents in which employees narrowly escape injury, clearly expose hazards. Analysis to identify their causes permits development of measures to prevent future injury or illness. Although a first look may suggest that "employee error" is a major factor, it is rarely sufficient to stop there. Even when an employee has disobeyed a required work practice, it is critical to ask, "Why?" A thorough analysis will generally reveal a number of deeper factors, which permitted or even encouraged an employee's action. Such factors may include a supervisor's allowing or pressuring the employee to take short cuts in the interest of production, inadequate equipment, or a work practice which is difficult for the employee to carry out safely. An effective analysis will identify actions to address each of the causal factors in an accident or "near miss" incident.

"(c)(2)(v) Analyze injury and illness trends over time, so that patterns will common causes can be identified and prevented."

Comment: A review of injury experience over a period of time may reveal patterns of injury with common causes which can be addressed. Correlation of changes in injury experience with changes in safety and health program operations, personnel, and production processes may help to identify causes.

(c)(3) Hazard Prevention and Control

Comment: Effective management prevents or controls identified hazards and prepares to minimize the harm form job-related injuries and illnesses when they do occur.

"(c)(3)(i) So that all current and potential hazards, however detected, are corrected or controlled in a timely manner, establish procedures for that purpose, using the following measures:

(A) engineering techniques where feasible and appropriate;

(B) procedures for safe work which are understood and followed by all affected parties, as a result of training, positive reinforcement, and, if necessary, endorsement through a clearly communicated disciplinary system;

(C) provision of personal protective equipment; and

(D) administrative controls, such as reducing the duration of exposure."

Comment: Hazards, once recognized, are promptly prevented or controlled. Management action in this respect determines the credibility of its safety and health management policy and the usefulness of it entire program.

An effective program relies on the means for prevention or control which provides the best feasible protection of employee safety and health.

It regards legal requirements as a minimum. When there are alternative ways to address a hazard, effective managers have found that involving employees in discussions of methods can identify useful prevention and control measures, serve as a means for communicating the rational for decisions made, and encourage employee acceptance of the decisions.

When safe work procedures are the means of protection, ensuring that they are followed becomes critical. Ensuring safe work practices involves discipline in both a positive sense and a corrective sense. Every component of effective safety and health management is designed to create a disciplined environment in which all personnel act on the basic that worker safety and health protection is a fundamental value of the organization. Such an environment depends on the credibility of management's involvement in safety and health matters, inclusion of employees in decisions which affect their safety and health, rigorous worksite analysis to identify hazards and potential hazards, stringent prevention and control measures, and thorough training. In such an environment, all personnel will understand the hazards to which they are exposed, why the hazards pose a threat, and how to protect themselves and others form the hazards. Training for the purpose is reinforced by encouragement of attempt to work safely and by positive recognition of safe behavior.

If, in such a context, an employee, supervisor, or manager fails to follow a safe procedure, it is advisable not only to stop the unsafe action but also to determine whether some condition of the work has made it difficult to follow the procedure or whether some management system has failed to communicate the danger of the action and the means for avoiding it. If the unsafe action was not based on an external condition or a lack of understanding, or if, after such external condition or lack of understanding has been corrected, the person repeats the action, it is essential that corrective discipline be applied. To allow an unsafe action to continue not only continues to endanger the actor and perhaps others; it also undermines the positive discipline of the entire safety and health program. To be effective, corrective discipline must be applied consistently to all, regardless of role or rank; but it must be applied.

Factors which may affect the time required for correction of hazards include: (1) The complexity abatement technology; (2) the degree of risk; and (3) the availability of necessary equipment, materials, and staff qualified to complete the correction. Because conditions affecting hazard correction and control vary widely, it is impractical of OSHA to recommend specific time limits for all situations. An effective program corrects hazards in the shortest time permitted by the technology required and the availability of needed personnel and materials. It also provides for interim protection when immediate correction is not possible.

"(c)(3)(ii) Provide for facility and equipment maintenance, so that hazardous breakdown is prevented."

Comment: Maintenance of equipment of facilities in an especially important means of anticipating potential hazards and preventing their development. Planning, scheduling, and tracking preventive maintenance activities provides a systematic way of ensuring that they are not neglected.

"(c)(3)(iii) Plan and prepares for emergencies, and conduct training and drills as needed, so that the response of all parties to emergencies will be "second nature."

Comment: Planning and training for emergencies is essential in minimizing the harmful consequences of an accident or other threat if it does occur. If personnel are not so thoroughly trained to react to emergencies that their responses are immediate and precise, they may expose themselves and others to greater danger rather than reduce their exposure. The nature of potential emergencies depends on the nature of site operations and its geographical location. The extent to which training and drills are needed depends on the severity and complexity of the emergencies which may arise.

"(c)(2)(iv) Establish a medical program which includes availability of first aid on site and of physician and emergency medical care nearby, so that harm will be minimized if an injury or illness does occur."

Comment: The availability of first aid and emergency medial care are essential in minimizing the harmful consequences of injuries and illnesses if they do occur. The nature of services needed will depend on the seriousness of injuries or health hazard exposures which may occur. Minimum requirements are addressed in OSHA standards.

(c)(4) Safety and Health Training

Comment: Education and training are essential means for communicating practical understanding of the requirements of effective safety and health protection to all personnel. Without such understanding, managers, supervisors, and other employees will not perform their responsibilities for safety and health protection effectively.

It is not suggested that elaborate or formal training programs solely related to safety and health are always needed. Integrating consideration of safety and health protection into all organizational activities is the key to its effectiveness. Safety and health information and instruction is, therefore, often most effective when incorporated into other training about performance requirements and job practices, such as management training on performance evaluation, problem solving, or managing change; supervisors' training on the reinforcement of good work practices and the correction of poor ones; and employee training on the operation of a particular machine or the conduct of a specific task.

Each paragraph in this section recommends that the employer ensure understanding of safety and health information by employees, supervisors, and managers. The act of training itself is not sufficient to endure practical comprehension. Some means of verifying comprehension is essential. Formal testing, oral questioning, observation, and other means can be useful. In its Voluntary Protection Programs. OSHA has found that observing and interviewing employees, supervisors, and managers are the most effective measures for determining their understanding of what is expected of them in practice. Although there is no fully reliable means for ensuring understanding, effective safety and health management will apply the same diligence with respect to safety and health protection as is applied to ensuring an understanding of other operational requirements, such as time and attendance, production schedules, and jog skills.

"(c)(4)(i) Ensure that all employees understand the hazards to which they may be exposed and how to prevent harm to themselves and others from exposure to these hazards, so that employees accept and follow established safety and health protections."

Comment: The commitment and cooperation of employees in preventing and controlling exposure to hazards is critical, not only for their own safety and health but for that of others as well. That commitment and cooperation depends on their understanding what hazards they may be exposed to, why the hazards pose a threat, and how they can protect themselves and others from the hazards. The means of protection which they need to understand include not only the immediate protections from hazards in their work processes and locations, but also the management systems which commit the organization to safety and health protection and provide for employee involvement in hazard identification and prevention.

OSHA's Hazard Communication Standard specifies, for chemical hazards, an employer duty to inform employees about workplace hazards and to provide training that will enable them to avoid work-related injuries or illnesses. Other standards set forth training requirements, as summarized in OSHA Publication 2254. "Training Requirements in OSHA Standards and Training Guidelines." The rational for these standards requirements is, however, applicable in relation to all hazards.

Education and training in safety and health protection is especially critical for employees who are assuming new duties. This fact is reflected by the disproportionately high injury rates among workers newly assigned to work tasks. Although some of these injuries may be attributable to other causes, a substantial number are directly related to inadequate knowledge of job hazards and safe work practices. The Bureau of Labor Statistics reports that in 1979. 48 percent of workers injured had been on the job less than one year. ("The New Worker Factor Associated with Occupational Injuries and Illnesses," U.S. Department of Labor, Bureau of Labor Statistics, 1982.) These figures make clear the importance of training employees on job hazards and safe work practices before they assume new duties.

The extent of hazard information which is needed by employees will vary, but includes at least; (1) The general hazards and safety rules of the worksite; (2) specific hazards, safety rules, and practices related to particular work assignments; and (3) the employee's role in emergency situations. Such information and training is particularly relevant to hazards that may not be readily apparent to, to within the ordinary experience and knowledge of, the employee.

"(c)(4)(ii) So that supervisors will carry out their safety and health responsibilities effectively, ensure that they understand those responsibilities and the reasons for them, including;

(A) analyzing the work under their supervision to identify unrecognized potential hazards;

(B) maintaining physical protections in their work areas; and

(C) reinforcing employee training on the nature of potential hazards in their work and on needed protective measures, through continual performance feedback and, if necessary, through enforcement of safe work practices."

Comment: First-line supervisors have an especially critical role in safety and health protection because of their immediate responsibility for workers and for the work being performed. Effective training of supervisors will address their safety and health management responsibilities as well as information on hazards, hazard prevention, and response to emergencies. Although they may have other safety and health responsibilities, those listed in these guidelines merit particular attention.

"(c)(4)(iii) Ensure that managers understand their safety and health responsibilities" and described under (c)(1). "Management Commitment and Employee Involvement," so that the managers will effectively carry out those responsibilities."

Comment: Because there is a tendency in some businesses to consider safety and health a staff function and to neglect the training of managers in safety and health responsibilities, the importance of managerial training is noted separately. Managers who understand both the way and the extend to which effective safety and health protection impacts on the overall effectiveness of the business itself are far more likely to ensure that the necessary safety and health management systems operates as needed.

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